

phen,Tamira

From: Michael Cook [maushaus@bealenet.com]
Sent: Tuesday, February 03, 2009 11:10 AM
To: Cohen,Tamira
Subject: Re: Elk Hill Farm, VPDES Permit Application, VA0062731

Hello,

Sorry for the delay in getting back to you. They were daily MAX. The Avg summer is 26C and the avg Winter is 14C. I am waiting for the final sample result from the lab, as soon as I receive it I will submit it.

Michael

----- Original Message -----

From: Cohen,Tamira
To: maushaus@bealenet.com
Sent: Monday, February 02, 2009 2:34 PM
Subject: RE: Elk Hill Farm, VPDES Permit Application, VA0062731

Mike,

The temperatures you gave me back in December (scroll down)—are these daily max or monthly averages? Are they for 2008?

Sincerely,

Tammy

Tamira Cohen

Environmental Engineer, Sr.
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060
Tel: (804) 527-5012
Fax: (804) 527-5106

From: Michael Cook [mailto:maushaus@bealenet.com]
Sent: Friday, December 19, 2008 11:43 AM
To: Cohen,Tamira
Subject: Re: Elk Hill Farm, VPDES Permit Application, VA0062731

Thank you. The weeks seem longer at Christmas.

From: "Cohen,Tamira"
Date: Fri, 19 Dec 2008 13:30:23 -0500
To: Michael Cook<maushaus@bealenet.com>
Subject: RE: Elk Hill Farm, VPDES Permit Application, VA0062731
Thanks.

Tamira Cohen

Environmental Engineer, Sr.
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060
Tel: (804) 527-5012
Fax: (804) 527-5106

From: Michael Cook [mailto:maushaus@bealenet.com]

2/3/2009

Sent: Friday, December 19, 2008 12:20
To: Cohen,Tamira
Subject: Re: Elk Hill Farm, VPDES Permit Application, VA0062731

----- Original Message -----

From: Cohen,Tamira
To: maushaus@bealenet.com
Sent: Friday, December 12, 2008 1:40 PM
Subject: RE: Elk Hill Farm, VPDES Permit Application, VA0062731

I did find two samples for the fecal coliform test (one taken on 9/25/08 and one taken on 10/17/08) which means we are only waiting for one more to be taken on or after 1/25/09.

Just a couple more questions with respect to the application:

Form 2A, page 6, Item A.12.

1. The flow rate you provided in the last submittal is given as 0.12 MGD. Given the design flow is 0.0125, is this correct?
The avg flow rate is .006 mgd.
2. 2. Can you provide temperatures using a minimum of 3 samples—right now only 1 sample is indicated. Jan 11 C
Mar 18C Aug 28C Oct 18C
3. 3. Can you provide the lab reports for the BOD and TSS or at least provide the type of samples that were taken (i.e. grab or 24-hour composite)? The samples were grab samples.
- 4.
5. Michael Cook
6. TetraOps
7. 804-387-6362
- 8.

Sincerely,

Tamira Cohen

Environmental Engineer, Sr.
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060
Tel: (804) 527-5012
Fax: (804) 527-5106

From: Michael Cook [mailto:maushaus@bealenet.com]
Sent: Thursday, December 11, 2008 3:22 PM
To: Cohen,Tamira
Subject: Re: Elk Hill Farm, VPDES Permit Application, VA0062731

Thank you. I am in the field currently. I will look through my files and get back with you soon. It is really raining!
Mike

From: "Cohen,Tamira"
Date: Thu, 11 Dec 2008 15:07:32 -0500
To: Michael Cook<maushaus@bealenet.com>
Subject: RE: Elk Hill Farm, VPDES Permit Application, VA0062731
October 17th is what I have.

Tamira Cohen

Environmental Engineer, Sr.
Department of Environmental Quality

Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060
Tel: (804) 527-5012
Fax: (804) 527-5106

From: Michael Cook [mailto:maushaus@bealenet.com]
Sent: Thursday, December 11, 2008 1:50 PM
To: Cohen, Tamira
Subject: Re: Elk Hill Farm, VPDES Permit Application, VA0062731

Thank you.

What is the date on the sample result you have? I am running down the second sample, which I have collected. I was waiting for the time requirement for the third sample.

Mike

----- Original Message -----

From: Cohen, Tamira
To: Michael Cook
Sent: Thursday, December 11, 2008 2:42 PM
Subject: Elk Hill Farm, VPDES Permit Application, VA0062731

I just wanted to remind you that we are still waiting on two of the three required fecal coliform results. I received one test result October 23, 2008. How is this coming along?

Sincerely,

Tamira Cohen

Environmental Engineer, Sr.

Department of Environmental Quality

Piedmont Regional Office

4949-A Cox Road

Glen Allen, VA 23060

Tel: (804) 527-5012

Fax: (804) 527-5106

More info:

----- Original Message -----

From: Cohen, Tamira

To: Michael Cook

Sent: Friday, September 19, 2008 4:05 PM

Subject: RE: Elk Hill Farm VPDES Permit Application, VA0062731

Just a few more items to complete the application:

Permit Application Addendum

Item 6. Please provide a description of the nature of operations generating wastewater.

The facility served is an educational residential educational facility with a 50 students and 20 staff members.

Item 9. Please provide the approval dates for the Operations and Maintenance Manual and for the Sludge/Solids Management Plan.

The original O & M manual was approved May 10th, 1973.

Please answer the final question on this sheet: Have there been any changes in operations or procedures since the above approval dates? Y or N

A addition was made to include treatment to obtain permitted nitrogen levels and approved by Reed barrows.

Sewage Sludge Application

Item A.1.d. Should the facility location here be the same as in the corrected EPA 2A form (i.e. 1975 Elk Hill Road, Goochland)? Yes, the facility is located on campus.

Item A.7. Can you provide the permit number for Dillon's Septic Tank Service. I have a call into them.

Item B.6. You have now indicated the receiving facility as Hanover County DPU but have given the permit number for Henrico County WWTP. Please reconcile.

The septic receiving station is on Richford Rd. operated by Hanover County Department of Public Utilities. It is a pump station which feeds to the Henrico County Regional Plant.

Sincerely,

Tamira Cohen

Environmental Engineer, Sr.

Department of Environmental Quality

Piedmont Regional Office

4949-A Cox Road

Glen Allen, VA 23060

Tel: (804) 527-5012

Fax: (804) 527-5106

From: Michael Cook [mailto:maushaus@bealenet.com]

Sent: Thursday, August 21, 2008 2:13 PM

To: Cohen, Tamira

Subject: Re: Elk Hill Farm VPDES Permit Application, VA0062731

I just need to get signatures and I will hand deliver the application to your office. Mr Farley is out until the first week in September. I have left a message for Mr. Spears and will have him sign if possible.

Mike

----- Original Message -----

From: Cohen, Tamira

To: Michael Cook

Sent: Wednesday, August 20, 2008 1:45 PM

Subject: RE: Elk Hill Farm VPDES Permit Application, VA0062731

Mike,

11/19/2008

Have you submitted the revised application yet? I didn't see it in my mailbox.

Tammy

Tamira Cohen

Environmental Engineer, Sr.
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060
Tel: (804) 527-5012
Fax: (804) 527-5106

From: Michael Cook [mailto:maushaus@bealenet.com]
Sent: Thursday, August 07, 2008 8:21 PM
To: Cohen, Tamira
Subject: Re: Elk Hill Farm VPDES Permit Application, VA0062731

Thank you,
Mike

----- Original Message -----

From: Cohen, Tamira
To: Michael Cook
Sent: Thursday, August 07, 2008 4:04 PM
Subject: RE: Elk Hill Farm VPDES Permit Application, VA0062731

will try to get back you tomorrow on this.

Tamira Cohen

Environmental Engineer, Sr.
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060
Tel: (804) 527-5012
Fax: (804) 527-5106

From: Michael Cook [mailto:maushaus@bealenet.com]
Sent: Thursday, August 07, 2008 3:22 PM
To: Cohen, Tamira
Subject: Fw: Elk Hill Farm VPDES Permit Application, VA0062731

I am finishing up. I still may need clarification on some items:

----- Original Message -----

From: Cohen, Tamira
To: maushaus@bealenet.com
Sent: Tuesday, June 24, 2008 11:51 AM
Subject: Elk Hill Farm VPDES Permit Application, VA0062731

Dear Mr. Cook,

The permit application submitted May 28, 2008 is considered incomplete. Please revise as indicated below and resubmit the applicable sections by July 8, 2008.

1. EPA Form 2A:

1. Item A.1. Facility address in application (1975 Elk Hill Rd.) is not the same as in permit (1903 Elk Hill Farm Rd.). Please reconcile.
1975 is the correct address
2. Item A.2. Does the title for Michael Cook read "Operator"? Yes Operations consultant

3. Item A.11. Please complete subsections b. to d. I must make one more trip to the facility.
4. Item A.12. Please provide winter and summer temperatures, BOD5, fecal coliform, and TSS data. Please note that a minimum of 3 data values per parameter are required. Almost Complete
5. Part C. Is the signatory (Michael L. Cook) authorized to sign for the corporation Elk Hill Farm, Inc.? If yes, we will need a copy of the letter from an authorized signatory of Elk Hill Farm delegating authority. No, I will have Mr. Farley sign the permit

II. Sewage Sludge Application:

1. Item A.1.b. and c. The facility contact person and mailing address are different than those provided in EPA form 2A Item A.1. Please reconcile.
Corrected
2. Item A.1.d. Facility address not the same as in permit. See comment above (Item A.1. EPA form 2A)
Corrected
3. Item A.7. Can you resubmit the name for the second contractor listed alongside Dillon's Septic Hauling. Additionally, you have listed one permit number for contractor. Which contractor's permit number is 2667? Please provide the permit number for the second contractor as well.
The number submitted was for the City of Richmond's Wastewater receiving facility, MoJohns hauls to Richmond City, Dillon's hauls to a receiving station on Richfood Rd. operated by Hanover County Utilities Dept. and is then pumped to the Henrico County Regional WWTP.
4. Item A.9. Only Sections A and B need to be marked. Additionally, see above comment (Part C, EPA Form 2A) regarding signatory authority.
Corrected
5. Additionally, please complete this item by providing a description of the services(s) provided by the contractor(s) to the applicant/facility and the respective obligations of the applicant/facility and the contractor (s). The contractor pumps the contents of the digester and hauls it to a receiving station of their choice.
6. Item B.1. Can you provide an estimate of the dry metric tons of sludge generated by the facility per 365-day period? No dry solids are produced at the facility. All solids are pumped and hauled by septic trucks.
7. Item B.3.b. Please complete this item or indicate N/A if not applicable.
Corrected
8. Item B.5.b. Indicate N/A
Corrected
9. Item B.6. The permit fact sheet indicates sludge is pumped and hauled to the Henrico County collection system at the Richfood Road Station for treatment and disposal at the Henrico County WWTP. If this is no longer correct, please provide more details in subsections a. to c. as required. If this is still the procedure, then revise the above noted subsections accordingly. Corrected. As stated above.
10. Item B.6.d. Please provide an estimate of the dry metric tons per 365-day period of sewage sludge provided to the receiving facility.
No dry solids are produced at the facility. All solids are pumped and hauled by septic trucks.
11. Item B.6.e. Please provide the receiving facility's VPDES and/or other permit numbers as indicated. Henrico & City of Richmond WWTP VPDES?
12. Item B.6.g. and h. Since "yes" is indicated, please provide the details as required and/or the permit number.
Corrected
13. Item B.k. Please complete this item with the detailed information requested. You must indicate haul routes (map or description) and indicate days of the week and times of the day sewage sludge will be transported. The routes differ by hauler & their schedules. The solids are digesters are pumped as needed with no set schedule.

III. VPDES Permit Application Addendum--This was not provided with the application. I have attached an electronic copy. Please complete and return to my attention. Corrected

Thank you for your patience and help. Would you like me to send in the corrected pages, retrieve the existing

application and correct it, or complete a new forms?

Michael Cook
804-994-2088
804-387-6362* cell

Please contact me if you need any further assistance.

Sincerely,

Tamira Cohen

Environmental Engineer, Sr.
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060
Tel: (804) 527-5012
Fax: (804) 527-5106



Analytical Summary

10357 Old Keeton Road
Ashland, Virginia 23005
Phone 804 550 3971
Fax 804 550 3826

TetraOps
Attn: Michael L. Cook
P.O. Box 13
Doswell, VA 23047

Project Name : Elk Hill
Date Received: January 27, 2009
Date Sampled : January 27, 2009
Time Sampled : 09:40
Date Issued : February 05, 2009

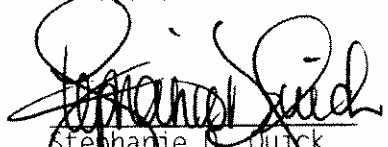
Lab # 1(A-D)/Sample ID : Final Effluent

Parameter	Result	Units	DL	Date/Time Prepared	Date/Time Analyzed	Method	Analyst
TSS	4.9	mg/l	1.0	01-30/1430	02-02/0900	2540 D	ISW
BOD	15	mg/l	2	01-28/1400	02-02/1100	5210 B	SDC
Ammonia (as N)	0.7	mg/l	.1	01-29/0930	01-29/0945	4500-NH3F	MRG
Fecal Coliform	< 1	CFU/100ml	2	01-27/1600	01-28/1410	p.124	RAY

BDL = Below Detection Limit

All methods are 40 CFR 136 March 12, 2007. Table IB approved.

Reference to Standard Methods is 18th ed.


Stephanie D. Quick
Director of Operations

R9181999-1

TetraOps
Box 13
Doswell, VA 23047

804-994-2088 Phone
804-994-2324 Fax

Email: maushaus@bealenet.com

DATE: October 23, 2008

TO: DEQ *Tamira Cohen*
Environmental Engineer, Sr.
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060
Tel: (804) 527-5012
Fax: (804) 527-5106

RE: Elk Hill Farm

Pages W/ Cover: 3



TetraOps
Attn: Michael L. Cook
P.O. Box 13
Dorwell, VA 23047

Analytical Summary

10067 Old Market Road
Norfolk, Virginia 23502
Phone: 804 540 3677
Fax: 804 540 3679

Project Name: Elk Hill
Date Received: September 25, 2008
Date Sampled: September 25, 2008
Time Sampled: 12:40
Date Issued: September 29, 2008

Lab # 1(A-B)/Sample ID : Final Effluent

Parameter	Result	Units	DL	Date/Time Prepared	Date/Time Analyzed	Method	Analyst
fecal coliform	< 2	CFU/100ml	2	09-29/1650	09-28/1945	9221E	kat

BDL = Below Detection Limit
A-1 methods are 40 CFR 136 March 12, 2007. Table 18 approved.
Reference to Standard Methods is 18th ed

Carrie L. Sisk
Carrie L. Sisk
Laboratory Manager
R0906016-1

Analytical Summary

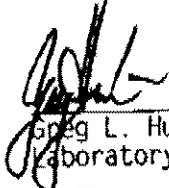
10357 Old Keston Road
Ashland, Virginia 23005
Phone 804 550 3971
Fax 804 550 3828

TetraOps
Attn: Michael L. Cook
P.O. Box 13
Doswell, VA 23047

Project Name : Elk Hill
Date Received: October 17, 2008
Date Sampled : October 17, 2008
Time Sampled : 11:25
Date Issued : October 21, 2008

Lab # 1(A-B)/Sample ID	:	Final Effluent			Date/Time Prepared	Date/Time Analyzed	Method	Analyst
Parameter		Result	Units	DL				
Fecal Coliform		< 2	CFU/100ml	2	10-17/1430	10-19/1150	9221E	KBT

BDL = Below Detection Limit
All methods are 40 CFR 136 March 12, 2007, Table IB approved.
Reference to Standard Methods is 18th ed.


Greg L. Hudson
Laboratory Director

R8A80886-1

FORM
2A
NPDES**NPDES FORM 2A APPLICATION OVERVIEW****APPLICATION OVERVIEW**

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

- A. Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

- D. Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
1. Has a design flow rate greater than or equal to 1 mgd,
 2. Is required to have a pretreatment program (or has one in place), or
 3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
1. Has a design flow rate greater than or equal to 1 mgd,
 2. Is required to have a pretreatment program (or has one in place), or
 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
 2. Any other industrial user that:
 - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
 - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - c. Is designated as an SIU by the control authority.
- G. Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)RECEIVED
SEP 10 2 2004
PRORECEIVED
SEP 10 2 2004
PRO

ELK HILL FARM VA 0062731

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name	Elk Hill Farm
Mailing Address	P.O. Box 99 Gooseland VA 23063
Contact person	Mr. Robert Browning
Title	Maint. Supervisor
Telephone number	804-457-4866
Facility Address	1975 Elk Hill Rd
(not P.O. Box)	Gooseland VA 23063

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name Michael L. Cook

Mailing Address P.O. Box 13
DOS WELL VA
23043

Contact person Michael L. Cook

Title Operations Consultant.

Telephone number 804 994 2088

Is the applicant the owner or operator (or both) of the treatment works?

owner ✓ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

facility ✓ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES	PSD
UIC	Other
RCRA	Other

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
Total population served			

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

A.11. Description of Treatment.

- a. What levels of treatment are provided? Check all that apply.

☒ Primary☒ Secondary☐ Advanced☐ Other. Describe:

PACKAGE PLANT

- b. Indicate the following removal rates (as applicable):

Design BOD₅ removal or Design CBOD₅ removal

85 %

Design SS removal

85 %

Design P removal

0 %

Design N removal

85 %

Other

%

- c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

Chlorination

If disinfection is by chlorination, is dechlorination used for this outfall?

☒

Yes

☐ No

- d. Does the treatment plant have post aeration?

☒

Yes

☐ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.0	s.u.			
pH (Maximum)	8.2	s.u.			
Flow Rate	0.12	m ³ /s	0.06	m ³ /s	12
Temperature (Winter)	14	C	14	C	1
Temperature (Summer)	27	C	27	C	1

* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		

CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5	10.5	mg/L	6.0	mg/L	23.0	2540D	
FECAL COLIFORM		NA.					2540D	
TOTAL SUSPENDED SOLIDS (TSS)		12.8	mg/L	5.0	mg/L	23.0	2540D	

END OF PART A.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

☒ Basic Application Information packet

Supplemental Application Information packet:

☐ Part D (Expanded Effluent Testing Data)

☐ Part E (Toxicity Testing: Biomonitoring Data)

☐ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

☐ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title

Michael Farley Administrator

Signature

Michael Farley

Telephone number

404 457 8866

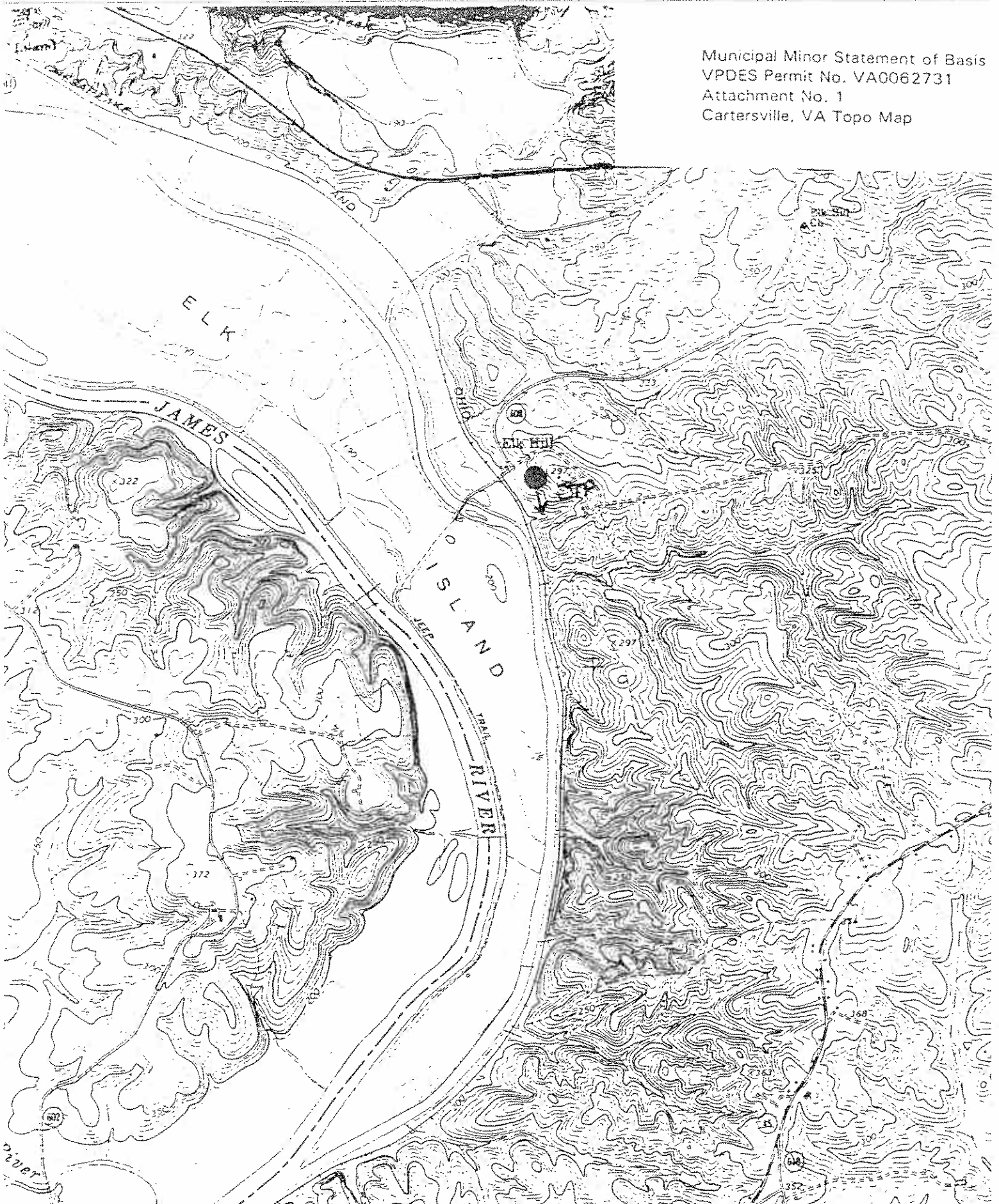
Date signed

2 Sept. 2008

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

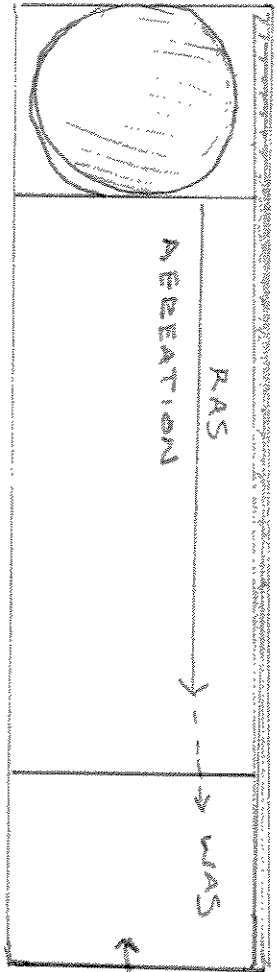
SEND COMPLETED FORMS TO:

Municipal Minor Statement of Basis
VPDES Permit No. VA0062731
Attachment No. 1
Cartersville, VA Topo Map



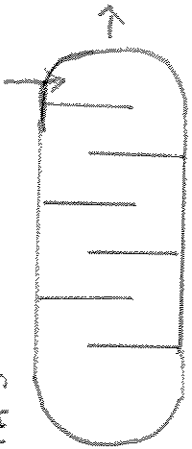
CLARIFIER

BLOWERS



DECHLORINATION

UT
LITTLE
RIVER



CHLORINATION

POST

AERATION

GRAVITY SEWER

LABORATORY
MAINT
STORAGE

ELK HILL FARM

W WTP

ROUGH LINE DRAWING.

VPDES Permit Application Addendum

1. Entity to whom the permit is to be issued: ELK HILL FARM INC.
Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.

2. Is this facility located within city or town boundaries? Y (N)

3. What is the tax map parcel number for the land where this facility is located? 26128A

4. For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities? 0

5. ALL FACILITIES: What is the design average flow of this facility? .0125 MGD
Industrial facilities: What is the max. 30-day avg. production level (include units)? 6

In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? Y (N)

If A Yes, please specify the other flow tiers (in MGD) or production levels:

Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?

6. Nature of operations generating wastewater:

100 % of flow from domestic connections/sources

Number of private residences to be served by the wastewater treatment facilities: ☒ 0 ☐ 1-49 ☐ 50 or more

0 % of flow from non-domestic connections/sources

7. Mode of discharge: ☒ Continuous ☐ Intermittent ☐ Seasonal
Describe frequency and duration of intermittent or seasonal discharges:

8. Identify the characteristics of the receiving stream at the point just above the facility's discharge point:

- ☐ Permanent stream, never dry
- ☐ Intermittent stream, usually flowing, sometimes dry
- ☐ Ephemeral stream, wet-weather flow, often dry
- ☐ Effluent-dependent stream, usually or always dry
- ☐ Lake or pond at or below the discharge point
- ☐ Other: _____

9. Approval Date(s):

O & M Manual _____ Sludge/Solids Management Plan _____

Have there been any changes in your operations or procedures since the above approval dates? Y / N

FACILITY NAME: Elk Hill Farm

VPDES PERMIT NUMBER: VA 00 62731

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into sections. Sections A pertain to all applicants. The applicability of Sections B, C and D depend on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Will this facility generate sewage sludge? ☐ Yes ☐ No

Will this facility derive a material from sewage sludge? ☐ Yes ☐ No

If you answered Yes to either, complete Section B (Generation Of Sewage Sludge Or Preparation Of A Material Derived From Sewage Sludge).

3. Will this facility apply sewage sludge to the land? ☐ Yes ☐ No

Will sewage sludge from this facility be applied to the land? ☐ Yes ☐ No

If you answered No to both questions above, skip Section C.

If you answered Yes to either, answer the following three questions:

a. Will the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
☐ Yes ☐ No

b. Will sewage sludge from this facility be placed in a bag or other container for sale or give-away for application to the land? ☐ Yes ☐ No

c. Will sewage sludge from this facility be sent to another facility for treatment or blending? ☐ Yes ☐ No

If you answered No to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

If you answered Yes to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? ☐ Yes ☐ No

If Yes, complete Section D (Surface Disposal).

FACILITY NAME: Elk Hill FarmVPDES PERMIT NUMBER: VA 0006 2751

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. Facility Information.

- a. Facility name: Elk Hill Farm WWTP
- b. Contact person: Mr. Bob Browning
Title: maint. supervisor
Phone: (804) 457 4846
- c. Mailing address:
Street or P.O. Box: P.O. Box 99
City or Town: Gooseland State: VA Zip: 23063
- d. Facility location:
Street or Route #: Elk Hill Rd / 608
County: Gooseland
City or Town: _____ State: VA Zip: 23063
- e. Is this facility a Class I sludge management facility? ☐ Yes ☐ No
- f. Facility design flow rate: _____ mgd
- g. Total population served: _____
- h. Indicate the type of facility:
☐ Publicly owned treatment works (POTW)
☐ Privately owned treatment works
☐ Federally owned treatment works
☐ Blending or treatment operation
☐ Surface disposal site
☐ Other (describe): _____

2. Applicant Information. If the applicant is different from the above, provide the following:

- a. Applicant name: Michael L. Cook
- b. Mailing address:
Street or P.O. Box: P.O. Box 13
City or Town: Doswell State: VA Zip: 23047
- c. Contact person: Michael L. Cook
Title: operations consultant
Phone: (804) 994 2088
- d. Is the applicant the owner or operator (or both) of this facility?
☐ owner ☒ operator
- e. Should correspondence regarding this permit be directed to the facility or the applicant? (Check one)
☐ facility ☒ applicant

3. Permit Information.

- a. Facility's VPDES permit number (if applicable): _____
- b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:
Permit Number: _____ Type of Permit: _____

4. Indian Country. Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? ☐ Yes ☐ No If yes, describe:

FACILITY NAME: ELK HILL FARMVPDES PERMIT NUMBER: VA 000 62731

5. Topographic Map. Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:
- Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
 - Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

6. Line Drawing. Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction. SEE FACILITY LINE DRAWING

7. Contractor Information. Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? ☒ Yes ☐ No

If yes, provide the following for each contractor (attach additional pages if necessary).

Name: DILLON'S SEPTIC TANK SERVICE

Mailing address:

Street or P.O. Box: 3055 Washington Hwy

City or Town: Ashland State: VA Zip: 23005

Phone: (804) 798-4471

Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

Mr & Mrs
1936 Cartersville Rd
Cartersville VA
23027
Permit # 2663

If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. Pollutant Concentrations. Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

9. Certification. Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

☒ Section A (General Information)
☒ Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
☐ Section C (Land Application of Bulk Sewage Sludge)
☐ Section D (Surface Disposal)

Dillon's

Box 13
Dorwell VA 23041

Phone (804) 991-2088

Fax (804) 991-2524

email: mmarshans@bcalnet.com

Addendum:

Septic Hauling A. 5

MoJohns and Dillions' Septic services remove waste solids from the facility digester and carry them to Hanover County's Department of Public Utilities Richfood Road receiving station. A normal route map is attached. The routine hauling is performed on an as needed basis between the hours of 8:00 am and 4:30 pm Monday through Friday.

The facility's solids handling process is limited to an aerobic digester. One the digester has reached its capacity the solids are removed, in liquid form, by the above septic hauler. The location of the digester is shown on the facility line drawing.

Estimate of Dry solids produced:

Digester 10ft X 8 ft. X 8ft. = 640 cu ft. capacity.

640 cu ft. X 7.48 cu ft./ gal = 4787.2 gal

4787.2 gal = 0.004787 MG

.004787 MG X 4000 mg/l TSS X 8.34 lbs/gal = 159.69 lbs per pump out.

The system averages four pumping cycles per year.

4 events X 159.69 lbs. = 638.7 lbs

1 pound = 0.00045359237 metric tons

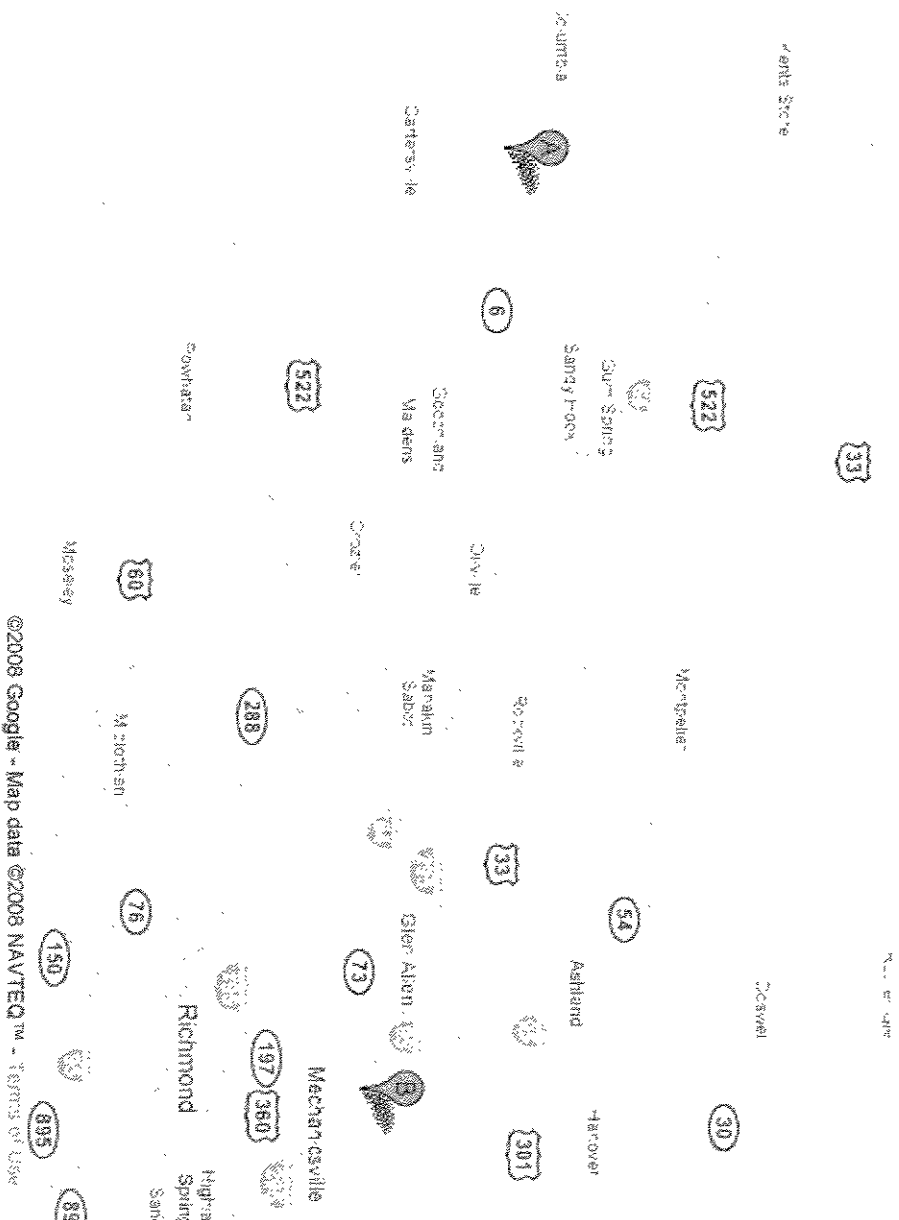
638.7 lbs X 0.00045359237 metric tons

.29 dry metric tons

Sincerely,



M. L. Cook



Driving directions to Richfood Rd, Mechanicsville, VA 23116

1975 Elk Hill Rd
Goochland, VA 23063

1. Head northeast on Elk Hill Rd toward River Rd W/VA-6 1.4 mi
2. Turn right at River Rd W/VA-6 10.7 mi

3. Turn left at **Sandy Hook Rd/US-522** 0.3 mi
 4. Turn right at **Fairground Rd** 5.1 mi
 5. Turn right at **Broad St Rd/US-250** 0.8 mi
 6. Turn left at **Oilville Rd** 0.4 mi
 7. Slight right to merge onto **I-64 E** toward **Richmond** 10.6 mi
 8. Take exit **177** to merge onto **I-295** S toward **Washington/Norfolk** 11.6 mi
 9. Take exit **41B** to merge onto **US-301 S/VA-2 S** toward **Richmond** 0.6 mi
 10. Turn left at **Richfood Rd** 0.6 mi
- Richfood Rd**
Mechanicsville, VA 23116

These directions are for planning purposes only. They may not account for road closures, traffic, weather, or other events that may cause conditions to differ from the map results. And you should plan your route accordingly. You must obey all signs and rules regarding your route.

Map data ©2008 NAVTEQ

FACILITY NAME: ELK HILL FARM

VPDES PERMIT NUMBER: VA00062731

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Michael J. Kelly Administrator

Signature Michael J. Kelly Date Signed 2 Sept. 2008

Telephone number 804 457 4866

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

FACILITY NAME: ELK HILL FARMVPDES PERMIT NUMBER: VA00062731**SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION
OF A MATERIAL DERIVED FROM SEWAGE SLUDGE**

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.
Total dry metric tons per 365-day period generated at your facility: _____ dry metric tons
2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.
 - a. Facility name: _____
 - b. Contact Person: _____
Title: _____
Phone () _____
 - c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
 - d. Facility Address: _____
(not P.O. Box) _____
 - e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons
 - f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

3. Treatment Provided at Your Facility.
 - a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
___ Class A ___ Class B ___ Neither or unknown
 - b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge: NA

 - c. Which vector attraction reduction option is met for the sewage sludge at your facility?
___ Option 1 (Minimum 38 percent reduction in volatile solids)
___ Option 2 (Anaerobic process, with bench-scale demonstration)
___ Option 3 (Aerobic process, with bench-scale demonstration)
___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
___ Option 5 (Aerobic processes plus raised temperature)
___ Option 6 (Raise pH to 12 and retain at 11.5)
___ Option 7 (75 percent solids with no unstabilized solids)
___ Option 8 (90 percent solids with unstabilized solids)
___ None or unknown
 - d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: _____

 - e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: _____

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge).
(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)
 - a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:
_____ dry metric tons
 - b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?

FACILITY NAME: _____
____ Yes ____ No

VPDES PERMIT NUMBER: _____

5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

- a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: _____ dry metric tons
- b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land. NA.

6. Shipment Off Site for Treatment or Blending.

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

- a. Receiving facility name: MANOUEW COUNTY DEPT OF UTILITIES
- b. Facility contact: DAVID F VAN GELDER
Title: Chief of operations & maintenance
Phone: (604) 365 6019
- c. Mailing address:
Street or P.O. Box: P.O. BOX 465
City or Town: MANOUEW State: VA Zip: 23069
- d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility: .29 dry metric tons
- e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:

Permit Number: VA0063690 Type of Permit: VPDES

- f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility? ☒ Yes ____ No

Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?

____ Class A ____ Class B ☒ Neither or unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge: _____

- g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? ☒ Yes ____ No

Which vector attraction reduction option is met for the sewage sludge at the receiving facility?

- ____ Option 1 (Minimum 38 percent reduction in volatile solids)
____ Option 2 (Anaerobic process, with bench-scale demonstration)
____ Option 3 (Aerobic process, with bench-scale demonstration)
____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
____ Option 5 (Aerobic processes plus raised temperature)
____ Option 6 (Raise pH to 12 and retain at 11.5)
____ Option 7 (75 percent solids with no unstabilized solids)
____ Option 8 (90 percent solids with unstabilized solids)
☒ None unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge: per their permit & procedures

- h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?

☒ Yes ____ No

If yes, describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:

Per their permit.

- i. If you answered yes to f., g or h above, attach a copy of any information you provide to the receiving facility

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G.

- j. Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? ☐ Yes ☐ No
If yes, provide a copy of all labels or notices that accompany the product being sold or given away.
- k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ☒ Yes ☐ No. If no, provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.
Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported. ATTACHED

7. Land Application of Bulk Sewage Sludge.

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6; complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

- a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites: _____ dry metric tons
- b. Do you identify all land application sites in Section C of this application? ☐ Yes ☐ No
If no, submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).
- c. Are any land application sites located in States other than Virginia? ☐ Yes ☐ No
If yes, describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.
- d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV).

8. Surface Disposal.

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

- a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons
- b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
☐ Yes ☐ No
If no, answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.
- c. Site name or number: _____
- d. Contact person: _____
Title: _____
Phone: () _____
Contact is: ☐ Site Owner ☐ Site operator
- e. Mailing address.
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons
- g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:
- | Permit Number: | Type of Permit: |
|----------------|-----------------|
| _____ | _____ |
| _____ | _____ |

9. Incineration.

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

FACILITY NAME: _____ VPDES PERMIT NUMBER: _____

- a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: _____ dry metric tons
- b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
___ Yes ___ No
If no, answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.
- c. Incinerator name or number: _____
- d. Contact person: _____
Title: _____
Phone: () _____
Contact is: ___ Incinerator Owner ___ Incinerator Operator
- e. Mailing address.
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons
- g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing of sewage sludge at this incinerator:
Permit Number: _____ Type of Permit: _____

10. Disposal in a Municipal Solid Waste Landfill.

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

- a. Landfill name: _____
- b. Contact person: _____
Title: _____
Phone: () _____
Contact is: ___ Landfill Owner ___ Landfill Operator
- c. Mailing address.
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- d. Landfill location.
Street or Route #: _____
County: _____
City or Town: _____ State: _____ Zip: _____
- e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill: _____ dry metric tons
- f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:
Permit Number: _____ Type of Permit: _____

- g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?
___ Yes ___ No
- h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? ___ Yes ___ No
- i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? ___ Yes ___ No
Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported. _____

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:

The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or

The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or

You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).

Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site.

- a. Site name or number: _____
- b. Site location (Complete i and ii)
- i. Street or Route#: _____
County: _____
City or Town: _____ State: _____ Zip: _____
- ii. Latitude: _____ Longitude: _____
Method of latitude/longitude determination
_____ USGS map _____ Filed survey _____ Other _____
- c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

2. Owner Information.

- a. Are you the owner of this land application site? ___ Yes ___ No
- b. If no, provide the following information about the owner:
Name: _____
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
Phone: () _____

3. Applier Information:

- a. Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site? ___ Yes ___ No
- b. If no, provide the following information for the person who applies the sewage sludge:
Name: _____
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
Phone: () _____
- c. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:

<u>Permit Number:</u>	<u>Type of Permit:</u>
_____	_____
_____	_____

4. Site Type. Identify the type of land application site from among the following:

- ___ Agricultural land ___ Reclamation site ___ Forest
___ Public contact site ___ Other. Describe _____

5. Vector Attraction Reduction.

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?

___ Yes ___ No If yes, answer a and b.

- a. Indicate which vector attraction reduction option is met:
___ Option 9 (Injection below land surface)
___ Option 10 (Incorporation into soil within 6 hours)
- b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

6. Cumulative Loadings and Remaining Allotments.

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

- a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? ☐ Yes ☐ No

If no, sewage sludge subject to the CPLRs may not be applied to this site.

If yes, provide the following information:

Permitting authority: _____

Contact person: _____

Phone: () _____

- b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? ☐ Yes ☐ No If no, skip the rest of Question 6. If yes, answer questions c - e.

- c. Site size, in hectares: _____ (one hectare = 2.471 acres)

- d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.

Facility name: _____

Facility contact: _____

Title: _____

Phone: () _____

Mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

- e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

	<u>Cumulative loading</u>	<u>Allotment remaining</u>
Arsenic	_____	_____
Cadmium	_____	_____
Copper	_____	_____
Lead	_____	_____
Mercury	_____	_____
Nickel	_____	_____
Selenium	_____	_____
Zinc	_____	_____

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. Sludge Characterization. Use the table below or a separate attachment, provide at least one analysis for each parameter.

PCBs (mg/kg)	_____
pH (S. U.)	_____
Percent Solids (%)	_____
Ammonium Nitrogen (mg/kg)	_____
Nitrate Nitrogen (mg/kg)	_____
Total Kjeldahl Nitrogen (mg/kg)	_____
Total Phosphorus (mg/kg)	_____
Total Potassium (mg/kg)	_____
Alkalinity as CaCO ₃ * (mg/kg)	_____

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent CaCO₃.

8. Storage Requirements.

Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.

Proposed sludge storage facilities must also provide the following information:

- a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line.
 - 1) Water wells, abandoned or operating
 - 2) Surface waters
 - 3) Springs
 - 4) Public water supply(s)
 - 5) Sinkholes
 - 6) Underground and/or surface mines
 - 7) Mine pool (or other) surface water discharge points
 - 8) Mining spoil piles and mine dumps
 - 9) Quarry(s)
 - 10) Sand and gravel pits
 - 11) Gas and oil wells
 - 12) Diversion ditch(s)
 - 13) Agricultural drainage ditch(s)
 - 14) Occupied dwellings, including industrial and commercial establishments
 - 15) Landfills or dumps
 - 16) Other unlined impoundments
 - 17) Septic tanks and drainfields
 - 18) Injection wells
 - 19) Rock outcrops
- b. A topographic map of sufficient detail to clearly show the following information:
 - 1) Maximum and minimum percent slopes
 - 2) Depressions on the site that may collect water
 - 3) Drainageways that may attribute to rainfall run-on to or runoff from this site
 - 4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding
- c. Data and specifications for the storage facility lining material.
- d. Plan and cross-sectional views of the storage facility.
- e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.

9. Land Area Requirements. Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings (CPI.R sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application.

10. Landowner Agreement Forms. Provide a properly completed Sewage Sludge Application Agreement Form (attached) for each landowner if sewage sludge is to be applied onto land not owned by the applicant.

11. Ground Water Monitoring.

Are any ground water monitoring data available for this land application site? ☐ Yes ☐ No

If yes, submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

12. Land Application Site Information.

(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period)

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

- a. Provide a general location map for each county which clearly indicates the location of all the land application sites.
- b. For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones.
- c. In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U. S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U. S. Fish and Wildlife Service
Ecological Services
6669 Short Lane
Gloucester, VA 23061
TEL: (804) 693-6694

Provide a copy of the notification letter with this application form.

- d. Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)
Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.
 - 1) Soil symbol
 - 2) Soil series, textural phase and slope range
 - 3) Depth to seasonal high water table
 - 4) Depth to bedrock
 - 5) Estimated soil productivity group (for the proposed crop rotation)

Item e - h are required for sites receiving frequent application of sewage sludge

- e. In order to verify the information provided in item d, characterize the soil at each land application site. Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:
 - 1). Soil symbol
 - 2). Soil series, textural phase and slope range
 - 3). Depth to seasonal high water table
 - 4). Depth to bedrock
 - 5). Estimated soil productivity group (for the proposed crop rotation)

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

- f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item c. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)	_____
Soil pH (std. units)	_____
Cation Exchange Capacity (meq/100g)	_____
Total Nitrogen (ppm)	_____
Organic Nitrogen (ppm)	_____
Ammonia Nitrogen (ppm)	_____
Nitrate Nitrogen (ppm)	_____
Available Phosphorus (ppm)	_____
Exchangeable Potassium (mg/100g)	_____
Exchangeable Sodium (mg/100g)	_____
Exchangeable Calcium (mg/100g)	_____
Exchangeable Magnesium (mg/100g)	_____
Arsenic (ppm)	_____
Cadmium (ppm)	_____
Copper (ppm)	_____
Lead (ppm)	_____
Mercury (ppm)	_____
Molybdenum (ppm)	_____
Nickel (ppm)	_____
Selenium (ppm)	_____
Zinc (ppm)	_____
Manganese (ppm)	_____
Particle Size Analysis or USDA Textural Estimate (%)	_____

- g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.
- h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

This sewage sludge application agreement is made on this date _____ between _____, referred to here as "landowner", and _____, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of sewage sludge on landowner's land in amounts and in a manner authorized by VPDES permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of sewage sludge will be beneficial in providing fertilizer and soil conditioning to the property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health, the following site restrictions must be adhered to when sewage sludge receives Class B treatment for pathogen reduction:

1. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge;
2. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil;
3. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil;
4. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge;
5. Animals shall not be grazed on the land for 30 days after application of sewage sludge;
6. Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board;
7. Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge;
8. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.
9. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of sewage sludge borne cadmium equal to or exceeding 0.5 kilograms/hectare (0.45 pounds/acre).

Permittee agrees to notify landowner or landowner's designee of the proposed schedule for sewage sludge application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner:

Signature

Mailing Address

Permittee:

Signature

Mailing Address

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1. Information on Active Sewage Sludge Units.

- a. Unit name or number: _____
- b. Unit location
- i. Street or Route#: _____
County: _____
City or Town: _____ State: _____ Zip: _____
- ii. Latitude: _____ Longitude: _____
Method of latitude/longitude determination
_____ USGS map _____ Filed survey _____ Other _____
- c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.
- d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period: _____ dry metric tons.
- e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit: _____ dry metric tons.
- f. Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7} cm/sec? ☐ Yes ☐ No If yes, describe the liner or attach a description.

- g. Does the active sewage sludge unit have a leachate collection system? ☐ Yes ☐ No
If yes, describe the leachate collection system or attach a description. Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:

- h. If you answered no to either f or g, answer the following:
Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? ☐ Yes ☐ No If yes, provide the actual distance in meters: _____
- i. Remaining capacity of active sewage sludge unit, in dry metric tons: _____ dry metric tons
Anticipated closure date for active sewage sludge unit, if known: _____ (MM/DD/YYYY)
Provide with this application a copy of any closure plan developed for this active sewage sludge unit.

2. Sewage Sludge from Other Facilities.

Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? ☐ Yes ☐ No

If yes, provide the following information for each such facility, attach additional sheets as necessary.

- a. Facility name: _____
- b. Facility contact: _____
Title: _____
Phone: () _____
- c. Mailing address.
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- d. List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the facility's sewage sludge management practices:
Permit Number: _____ Type of Permit: _____

- e. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?
☐ Class A ☐ Class B ☐ Neither or unknown
- f. Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge: _____

FACILITY NAME: _____

VPDES PERMIT NUMBER: _____

- g. Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?
- ___ Option 1 (Minimum 38 percent reduction in volatile solids)
 - ___ Option 2 (Anaerobic process, with bench-scale demonstration)
 - ___ Option 3 (Aerobic process, with bench-scale demonstration)
 - ___ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
 - ___ Option 5 (Aerobic processes plus raised temperature)
 - ___ Option 6 (Raise pH to 12 and retain at 11.5)
 - ___ Option 7 (75 percent solids with no unstabilized solids)
 - ___ Option 8 (90 percent solids with unstabilized solids)
 - ___ None or unknown
- h. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge: _____
- _____
- i. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in c - h above: _____
- _____

3. Vector Attraction Reduction.

- a. Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?
- ___ Option 9 (Injection below land surface)
 - ___ Option 10 (Incorporation into soil within 6 hours)
 - ___ Option 11 (Covering active sewage sludge unit daily)
- b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge: _____
- _____

4. Ground Water Monitoring.

- a. Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water monitoring data otherwise available for this active sewage sludge unit? ___ Yes ___ No
- If yes, provide a copy of available ground water monitoring data. Also provide a written description of the well locations, the approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.
- b. Has a ground water monitoring program been prepared for this active sewage sludge unit?
- ___ Yes ___ No If yes, submit a copy of the ground water monitoring program with this application.
- c. Have you obtained a certification from a qualified ground water scientist that the aquifer below the active sewage sludge unit has not been contaminated? ___ Yes ___ No
- If yes, submit a copy of the certification with this application.

5. Site-Specific Limits.

Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?

___ Yes ___ No If yes, submit information to support the request for site-specific pollutant limits with this application.

VPDES SEWAGE SLUDGE PERMIT APPLICATION FORM

SCREENING INFORMATION

This application is divided into four sections. Section A pertains to all applicants. The applicability of Sections B, C and D depends on your facility's sewage sludge use or disposal practices. The information provided on this page will help you determine which sections to fill out.

1. All applicants must complete Section A (General Information).

2. Does this facility generate sewage sludge? ☒ Yes ☐ No

Does this facility derive a material from sewage sludge? ☐ Yes ☒ No

If you answered "Yes" to either, complete Section B (Generation Of Sewage Sludge or Preparation Of A Material Derived From Sewage Sludge).

3. Does this facility apply sewage sludge to the land? ☐ Yes ☒ No

Is sewage sludge from this facility applied to the land? ☐ Yes ☒ No

If you answer "No" to all above, skip Section C.

If you answered "Yes" to either, answer the following three questions: NA

a. Does the sewage sludge from this facility meet the ceiling concentrations, pollutant concentrations, Class A pathogen reduction requirements and one of the vector attraction reduction requirements 1-8, as identified in the instructions?
☐ Yes ☐ No

b. Is sewage sludge from this facility placed in a bag or other container for sale or give-away for application to the land?
☐ Yes ☐ No

c. Is sewage sludge from this facility sent to another facility for treatment or blending? ☐ Yes ☐ No

If you answered "No" to all three, complete Section C (Land Application Of Bulk Sewage Sludge).

If you answered "Yes" to a, b or c, skip Section C.

4. Do you own or operate a surface disposal site? ☐ Yes ☒ No

If "Yes", complete Section D (Surface Disposal).

SECTION A. GENERAL INFORMATION

All applicants must complete this section.

1. Facility Information.

- a. Facility name: Elk Hill Farm
- b. Contact person: Michael L. Cook
Title: Consultant
Phone: (804) 994-2088
- c. Mailing address:
Street or P.O. Box: P.O. Box 13
City or Town: Doswell State: VA Zip: 23047
- d. Facility location:
Street or Route #: 1975 Elk Hill Rd.
County: Goochland
City or Town: Goochland State: VA Zip: 23063
- e. Is this facility a Class I sludge management facility? ☐ Yes ☒ No
- f. Facility design flow rate: .0125 mgd
- g. Total population served: 125
- h. Indicate the type of facility:
☐ Publicly owned treatment works (POTW)
☒ Privately owned treatment works
☐ Federally owned treatment works
☐ Blending or treatment operation
☐ Surface disposal site
☐ Other (describe): _____

2. Applicant Information. If the applicant is different from the above, provide the following:

- a. Applicant name: TetraOps LLC / Michael L. cook
- b. Mailing address:
Street or P.O. Box: P.O. Box 13
City or Town: Doswell State: VA Zip: 23047
- c. Contact person: Michael L. Cook
Title: Consultant
Phone: (804) 994-2088
- d. Is the applicant the owner or operator (or both) of this facility?
☐ owner ☒ operator
- e. Should correspondence regarding this permit be directed to the facility or the applicant?
☐ facility ☒ applicant

3. Permit Information.

- a. Facility's VPDES permit number (if applicable): VA0062731
- b. List on this form or an attachment, all other federal, state or local permits or construction approvals received or applied for that regulate this facility's sewage sludge management practices:
Permit Number: _____ Type of Permit: _____
None _____

4. **Indian Country.** Does any generation, treatment, storage, application to land or disposal of sewage sludge from this facility occur in Indian Country? Yes X No If "Yes", describe:

5. **Topographic Map.** Provide a topographic map or maps (or other appropriate maps if a topographic map is unavailable) that shows the following information. Maps should include the area one mile beyond all property boundaries of the facility:

- Location of all sewage sludge management facilities, including locations where sewage sludge is generated, stored, treated, or disposed.
- Location of all wells, springs, and other surface water bodies listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

6. **Line Drawing.** Provide a line drawing and/or a narrative description that identifies all sewage sludge processes that will be employed during the term of the permit including all processes used for collecting, dewatering, storing, or treating sewage sludge, the destination(s) of all liquids and solids leaving each unit, and all methods used for pathogen reduction and vector attraction reduction.

7. **Contractor Information.** Are any operational or maintenance aspects of this facility related to sewage sludge generation, treatment, use or disposal the responsibility of a contractor? X Yes ~~NO~~

If "Yes", provide the following for each contractor (attach additional pages if necessary).

Name: Dillion's Septic Hauling

Mailing address:

Street or P.O. Box: 305 S. Washington Hwy

City or Town: Ashland State: VA Zip: 23047

Phone: (804) 798-4471

4 wheel Drive Specialty Contractor, Inc.
c/o Mr. Johns
1936 Cartersville Rd.
Cartersville VA 23027

Contractor's Federal, State or Local Permit Number(s) applicable to this facility's sewage sludge:

NA

Permit # 2667

If the contractor is responsible for the use and/or disposal of the sewage sludge, provide a description of the service to be provided to the applicant and the respective obligations of the applicant and the contractor(s).

8. **Pollutant Concentrations.** Using the table below or a separate attachment, provide sewage sludge monitoring data for the pollutants which limits in sewage sludge have been established in 9 VAC 25-31-10 et seq. for this facility's expected use or disposal practices. All data must be based on three or more samples taken at least one month apart and must be no more than four and one-half years old.

POLLUTANT	CONCENTRATION (mg/kg dry weight)	SAMPLE DATE	ANALYTICAL METHOD	DETECTION LEVEL FOR ANALYSIS
Arsenic				
Cadmium				
Chromium				
Copper				
Lead				
Mercury				
Molybdenum				
Nickel				
Selenium				
Zinc				

9. **Certification.** Read and submit the following certification statement with this application. Refer to the instructions to determine who is an officer for purposes of this certification. Indicate which parts of the application you have completed and are submitting:

- X Section A (General Information)
X Section B (Generation of Sewage Sludge or Preparation of a Material Derived from Sewage Sludge)
X Section C (Land Application of Bulk Sewage Sludge)
X Section D (Surface Disposal)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Name and official title Michael L. Cook Consultant

Signature  Date Signed 30 April 2008

Telephone number (804) 994-2088

Upon request of the department, you must submit any other information necessary to assess sewage sludge use or disposal practices at your facility or identify appropriate permitting requirements.

**SECTION B. GENERATION OF SEWAGE SLUDGE OR PREPARATION
OF A MATERIAL DERIVED FROM SEWAGE SLUDGE**

Complete this section if your facility generates sewage sludge or derives a material from sewage sludge

1. Amount Generated On Site.

Total dry metric tons per 365-day period generated at your facility: NA dry metric tons

2. Amount Received from Off Site. If your facility receives sewage sludge from another facility for treatment, use or disposal, provide the following information for each facility from which sewage sludge is received. If you receive sewage sludge from more than one facility, attach additional pages as necessary.

- a. Facility name: NA
- b. Contact Person: _____
Title: _____
Phone: (_____) _____
- c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- d. Facility location: _____
(not P.O. Box) _____
- e. Total dry metric tons per 365-day period received from this facility: _____ dry metric tons
- f. Describe, on this form or on another sheet of paper, any treatment processes known to occur at the off-site facility, including blending activities and treatment to reduce pathogens or vector attraction characteristics:

3. Treatment Provided at Your Facility.

- a. Which class of pathogen reduction is achieved for the sewage sludge at your facility?
____ Class A ____ Class B ☒ Neither or unknown
- b. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce pathogens in sewage sludge:

- c. Which vector attraction reduction option is met for the sewage sludge at your facility?
____ Option 1 (Minimum 38 percent reduction in volatile solids)
____ Option 2 (Anaerobic process, with bench-scale demonstration)
____ Option 3 (Aerobic process, with bench-scale demonstration)
____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
____ Option 5 (Aerobic processes plus raised temperature)
____ Option 6 (Raise pH to 12 and retain at 11.5)
____ Option 7 (75 percent solids with no unstabilized solids)
____ Option 8 (90 percent solids with unstabilized solids)
☒ None or unknown
- d. Describe, on this form or another sheet of paper, any treatment processes used at your facility to reduce vector attraction properties of sewage sludge: NA
- e. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities, including blending, not identified in a - d above: NA

4. Preparation of Sewage Sludge Meeting Ceiling and Pollutant Concentrations, Class A Pathogen Requirements and One of Vector Attraction Reduction Options 1-8 (EQ Sludge). NA

(If sewage sludge from your facility does not meet all of these criteria, skip Question 4.)

- a. Total dry metric tons per 365-day period of sewage sludge subject to this section that is applied to the land:
0 dry metric tons
- b. Is sewage sludge subject to this section placed in bags or other containers for sale or give-away?
____ Yes X No

5. Sale or Give-Away in a Bag or Other Container for Application to the Land.

(Complete this question if you place sewage sludge in a bag or other container for sale or give-away prior to land application. Skip this question if sewage sludge is covered in Question 4.)

- a. Total dry metric tons per 365-day period of sewage sludge placed in a bag or other container at your facility for sale or give-away for application to the land: 0 dry metric tons
- b. Attach, with this application, a copy of all labels or notices that accompany the sewage sludge being sold or given away in a bag or other container for application to the land.

6. Shipment Off Site for Treatment or Blending.

(Complete this question if sewage sludge from your facility is sent to another facility that provides treatment or blending. This question does not apply to sewage sludge sent directly to a land application or surface disposal site. Skip this question if the sewage sludge is covered in Questions 4 or 5. If you send sewage sludge to more than one facility, attach additional sheets as necessary.)

- a. Receiving facility name: City of Richmond
- b. Facility contact: Dept. of Public Utilities
Title: General Switchboard
Phone: (804) _____
- c. Mailing address:
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
- d. Total dry metric tons per 365-day period of sewage sludge provided to receiving facility:
0 dry metric tons
- e. List, on this form or an attachment, the receiving facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the receiving facility's sewage sludge use or disposal practices:
Permit Number: _____ Type of Permit: _____

- f. Does the receiving facility provide additional treatment to reduce pathogens in sewage sludge from your facility?
X Yes ____ No
Which class of pathogen reduction is achieved for the sewage sludge at the receiving facility?
____ Class A ____ Class B X Neither or unknown
Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce pathogens in sewage sludge:
IAW permitted regulations

- g. Does the receiving facility provide additional treatment to reduce vector attraction characteristics of the sewage sludge? X Yes ____ No
Which vector attraction reduction option is met for the sewage sludge at the receiving facility? per permit

- ☐ Option 1 (Minimum 38 percent reduction in volatile solids)
☐ Option 2 (Anaerobic process, with bench-scale demonstration)
☐ Option 3 (Aerobic process, with bench-scale demonstration)
☐ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)
☐ Option 5 (Aerobic processes plus raised temperature)
☐ Option 6 (Raise pH to 12 and retain at 11.5)
☐ Option 7 (75 percent solids with no unstabilized solids)
☐ Option 8 (90 percent solids with unstabilized solids)
☒ None unknown

Describe, on this form or another sheet of paper, any treatment processes used at the receiving facility to reduce vector attraction properties of sewage sludge:

- h. Does the receiving facility provide any additional treatment or blending not identified in f or g above?
☒ Yes ☐ No

If "Yes", describe, on this form or another sheet of paper, the treatment processes not identified in f or g above:

see permit

- i. If you answered "Yes" to f, g or h above, attach a copy of any information you provide to the receiving facility to comply with the "notice and necessary information" requirement of 9 VAC 25-31-530.G. NA
- j. Does the receiving facility place sewage sludge from your facility in a bag or other container for sale or give-away for application to the land? ☐ Yes ☒ No
- If "Yes", provide a copy of all labels or notices that accompany the product being sold or given away.
- k. Will the sewage sludge be transported to the receiving facility in a truck-mounted watertight tank normally used for such purposes? ☒ Yes ☐ No. If "No", provide description and specification on the vehicle used to transport the sewage sludge to the receiving facility.

Show the haul route(s) on a location map or briefly describe the haul route below and indicate the days of the week and the times of the day sewage sludge will be transported.

see map

7. Land Application of Bulk Sewage Sludge. NA

(Complete Question 7.a if sewage sludge from your facility is applied to the land, unless the sewage sludge is covered in Questions 4, 5 or 6. Complete Question 7.b, c & d only if you are responsible for land application of sewage sludge.)

- a. Total dry metric tons per 365-day period of sewage sludge applied to all land application sites:
 _____ dry metric tons

- b. Do you identify all land application sites in Section C of this application? ☐ Yes ☐ No

If "No", submit a copy of the Land Application Plan (LAP) with this application (LAP should be prepared in accordance with the instructions).

- c. Are any land application sites located in States other than Virginia? ☐ Yes ☐ No

If "Yes", describe, on this form or on another sheet of paper, how you notify the permitting authority for the States where the land application sites are located. Provide a copy of the notification.

- d. Attach a copy of any information you provide to the owner or lease holder of the land application sites to comply with the "notice and necessary" information requirement of 9 VAC 25-31-530 F and/or H (Examples may be obtained in Appendix IV). **NA**

8. Surface Disposal. **NA**

(Complete Question 8 if sewage sludge from your facility is placed on a surface disposal site.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility placed on all surface disposal sites: _____ dry metric tons

b. Do you own or operate all surface disposal sites to which you send sewage sludge for disposal?
_____ Yes _____ No

If "No", answer questions c - g for each surface disposal site that you do not own or operate. If you send sewage sludge to more than one surface disposal site, attach additional pages as necessary.

c. Site name or number: _____

d. Contact person: _____

Title: _____

Phone: (_____) _____

Contact is: _____ Site Owner _____ Site operator

e. Mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

f. Total dry metric tons per 365-day period of sewage sludge from your facility placed on this surface disposal site: _____ dry metric tons

g. List, on this form or an attachment, the surface disposal site VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the sewage sludge use or disposal practices at the surface disposal site:

Permit Number: _____ Type of Permit: _____

9. Incineration. **NA**

(Complete Question 9 if sewage sludge from your facility is fired in a sewage sludge incinerator.)

a. Total dry metric tons per 365-day period of sewage sludge from your facility fired in a sewage sludge incinerator: _____ dry metric tons

b. Do you own or operate all sewage sludge incinerators in which sewage sludge from your facility is fired?
_____ Yes _____ No

If "No", answer questions c - g for each sewage sludge incinerator that you do not own or operate. If you send sewage sludge to more than one sewage sludge incinerator, attach additional pages as necessary.

c. Incinerator name or number: _____

d. Contact person: _____

Title: _____

Phone: (_____) _____

Contact is: _____ Incinerator Owner _____ Incinerator Operator

e. Mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

f. Total dry metric tons per 365-day period of sewage sludge from your facility fired in this sewage sludge incinerator: _____ dry metric tons

g. List on this form or an attachment the numbers of all other federal, state or local permits that regulate the firing

of sewage sludge at this incinerator:

Permit Number: _____ Type of Permit: _____

10. Disposal in a Municipal Solid Waste Landfill. ~~NA~~

(Complete Question 10 if sewage sludge from your facility is placed on a municipal solid waste landfill. Provide the following information for each municipal solid waste landfill on which sewage sludge from your facility is placed. If sewage sludge is placed on more than one municipal solid waste landfill, attach additional pages as necessary.)

a. Landfill name: _____

b. Contact person: _____

Title: _____

Phone: (_____) _____

Contact is: _____ Landfill Owner _____ Landfill Operator

c. Mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

d. Landfill location:

Street or Route #: _____

County: _____

City or Town: _____ State: _____ Zip: _____

e. Total dry metric tons per 365-day period of sewage sludge placed in this municipal solid waste landfill:

_____ dry metric tons

f. List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the operation of this municipal solid waste landfill:

Permit Number: _____ Type of Permit: _____

g. Does sewage sludge meet applicable requirements in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq., concerning the quality of materials disposed in a municipal solid waste landfill?

_____ Yes _____ No

h. Does the municipal solid waste landfill comply with all applicable criteria set forth in the Virginia Solid Waste Management Regulation, 9 VAC 20-80-10 et seq.? _____ Yes _____ No

i. Will the vehicle bed or other container used to transport sewage sludge to the municipal solid waste landfill be watertight and covered? _____ Yes _____ No

Show the haul route(s) on a location map or briefly describe the route below and indicate the days of the week and time of the day sewage sludge will be transported.

SECTION C. LAND APPLICATION OF BULK SEWAGE SLUDGE *NA*

Complete this section for sewage sludge that is land applied unless any of the following conditions apply:

- The sewage sludge meets the Table 1 ceiling concentrations, the Table 3 pollutant concentrations, Class A pathogen requirements and one of the vector attraction reduction options 1-8 (fill out B.4 instead) (EQ Sludge); or
- The sewage sludge is sold or given away in a bag or other container for application to the land (fill out B.5 instead); or
- You provide the sewage sludge to another facility for treatment or blending (fill out B.6 instead).

Complete Section C for every site on which the sewage sludge that you reported in B.7 is land applied.

1. Identification of Land Application Site.

- Site name or number: _____
- Site location (Complete i and ii)
 - Street or Route#: _____
County: _____
City or Town: _____ State: _____ Zip: _____
 - Latitude: _____ Longitude: _____
Method of latitude/longitude determination
_____ USGS map _____ Filed survey _____ Other _____
- Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

2. Owner Information.

- Are you the owner of this land application site? _____ Yes _____ No
- If "No", provide the following information about the owner:
Name: _____
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
Phone: (_____) _____

3. Applier Information:

- Are you the person who applies, or who is responsible for application of, sewage sludge to this land application site?
_____ Yes _____ No
- If "No", provide the following information for the person who applies the sewage sludge:
Name: _____
Street or P.O. Box: _____
City or Town: _____ State: _____ Zip: _____
Phone: (_____) _____
- List, on this form or an attachment, the numbers of all federal, state or local permits that regulate the person who applies sewage sludge to this land application site:
Permit Number: _____ Type of Permit: _____

4. Site Type. Identify the type of land application site from among the following:

_____ Agricultural land _____ Reclamation site _____ Forest
_____ Public contact site _____ Other (describe _____)

5. Vector Attraction Reduction.

Are any vector attraction reduction requirements met when sewage sludge is applied to the land application site?

_____ Yes _____ No If "Yes", answer a and b.

- a. Indicate which vector attraction reduction option is met:

_____ Option 9 (Injection below land surface)

_____ Option 10 (Incorporation into soil within 6 hours)

- b. Describe, on this form or on another sheet of paper, any treatment processes used at the land application site to reduce the vector attraction properties of sewage sludge:

6. Cumulative Loadings and Remaining Allotments.

(Complete Question 6 only if the sewage sludge applied to this site since July 20, 1993 is subject to the cumulative pollutant loading rates (CPLRs) - see instructions.)

- a. Have you contacted DEQ or the permitting authority in the state where the sewage sludge subject to the CPLRs will be applied to ascertain whether bulk sewage sludge subject to the CPLRs has been applied to this site since July 20, 1993? _____ Yes _____ No

If "No", sewage sludge subject to the CPLRs may not be applied to this site.

If "Yes", provide the following information:

Permitting authority:

Contact person: _____

Phone: (_____) _____

- b. Based upon this inquiry, has bulk sewage sludge subject to the CPLRs been applied to this site since July 20, 1993? _____ Yes _____ No If "No", skip the rest of Question 6. If "Yes", answer questions c - e.

- c. Site size, in hectares: _____ (one hectare = 2.471 acres)

- d. Provide the following information for every facility other than yours that is sending or has sent sewage sludge subject to the CPLRs to this site since July 20, 1993. If more than one such facility sends sewage sludge to this site, attach additional pages as necessary.

Facility name: _____

Facility contact: _____

Title: _____

Phone: (_____) _____

Mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

- e. Provide the total loading and allotment remaining, in kg/hectare, for each of the following pollutants:

	Cumulative loading	Allotment remaining
Arsenic	_____	_____
Cadmium	_____	_____
Copper	_____	_____
Lead	_____	_____
Mercury	_____	_____
Nickel	_____	_____
Selenium	_____	_____
Zinc	_____	_____

Complete Questions 7-12 below only if you apply sewage sludge, or you are responsible for land application of sewage

FACILITY NAME: Elk Hill Farm

VPDES PERMIT NUMBER: VA0062731

sludge. Information required by these questions may be prepared as attachments to this form. Skip the following questions if you contract land application to someone else (as indicated under Section A.7) who is responsible for the operation.

7. **Sludge Characterization.** Use the table below or a separate attachment, provide at least one analysis for each parameter.

PCBs (mg/kg)	_____
pH (S. U.)	_____
Percent Solids (%)	_____
Ammonium Nitrogen (mg/kg)	_____
Nitrate Nitrogen (mg/kg)	_____
Total Kjeldahl Nitrogen (mg/kg)	_____
Total Phosphorus (mg/kg)	_____
Total Potassium (mg/kg)	_____
Alkalinity as CaCO_3 (mg/kg)	_____

* Lime treated sludge (10% or more lime by dry weight) should be analyzed for percent CaCO_3 .

8. **Storage Requirements.**

Existing and proposed sludge storage facilities must provide an estimated annual sludge balance on a monthly basis incorporating such factors as storage capacity, sludge production and land application schedule. Include pertinent calculations justifying storage requirements.

Proposed sludge storage facilities must also provide the following information:

- a. A sludge storage site layout on a 7.5 minute topographic quadrangle or other appropriate scaled map to show the following topographic features of the surrounding landscape to a distance of 0.25 mile. Clearly mark the property line.
 - 1) Water wells, abandoned or operating
 - 2) Surface waters
 - 3) Springs
 - 4) Public water supply(s)
 - 5) Sinkholes
 - 6) Underground and/or surface mines
 - 7) Mine pool (or other) surface water discharge points
 - 8) Mining spoil piles and mine dumps
 - 9) Quarry(s)
 - 10) Sand and gravel pits
 - 11) Gas and oil wells
 - 12) Diversion ditch(s)
 - 13) Agricultural drainage ditch(s)
 - 14) Occupied dwellings, including industrial and commercial establishments
 - 15) Landfills or dumps
 - 16) Other unlined impoundments
 - 17) Septic tanks and drainfields
 - 18) Injection wells
 - 19) Rock outcrops
- b. A topographic map of sufficient detail to clearly show the following information:
 - 1) Maximum and minimum percent slopes
 - 2) Depressions on the site that may collect water
 - 3) Drainageways that may attribute to rainfall run-on to or runoff from this site
 - 4) Portions of the site (if any) which are located with the 100-year floodplain and how the storage facility will be protected from flooding
- c. Data and specifications for the storage facility lining material.
- d. Plan and cross-sectional views of the storage facility.
- e. Depth from the bottom of the storage facility to the seasonal high water table and separation distance to the permanent water table.

9. **Land Area Requirements.** Provide calculations justifying the land area requirements for land application of sewage sludge taking into consideration average soil productivity group, crop(s) to be grown and most limiting factor(s) of the sewage sludge, specifically Plant Available Nitrogen (PAN), Calcium Carbonate Equivalence (CCE), and metal loadings (CPLR sewage sludge only), where applicable. Relate PAN, CCE, and metal loadings to demonstrate the most limiting factor for land application.
10. **Landowner Agreement Forms.** Provide a properly completed Sewage Sludge Application Agreement Form (attached) for each landowner if sewage sludge is to be applied onto land not owned by the applicant.
11. **Ground Water Monitoring.**

Are any ground water monitoring data available for this land application site? ☐ Yes ☐ No

If "Yes", submit the ground water monitoring data with this permit application. Also submit a written description of the well locations, approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

12. **Land Application Site Information.**

(Complete Items a-d for sites receiving infrequent application - land application of sewage sludge up to the agronomic rate at a frequency of once in a 3 year period; complete Items a-h for sites receiving frequent application - land application of sewage sludge in excess of 70% the agronomic rate at a frequency greater than once in a 3 year period)

- Provide a general location map for each county which clearly indicates the location of all the land application sites.
- For each land application site provide a site plan of sufficient detail to clearly show the concerned landscape features and associated buffer zones (See instructions). Provide a legend for each landscape feature and the net acreage for each field taking into account the proposed buffer zones.
- In order to ensure that land application of bulk sewage sludge will not impact federally listed threatened or endangered species or federally designated critical habitat, the applicant must notify the field office of the U. S. Department of the Interior, Fish and Wildlife Service (FWS), by a letter, the proposed land application activities with the identification of the land application sites. The address and phone number of FWS are provided below.

U.S. Fish and Wildlife Service
Virginia Field Office
P.O. Box 480
White Marsh, VA 23183
TEL: (804) 693-6694

Provide a copy of the notification letter with this application form.

- Provide a soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)

Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions shall include as a minimum the following information.

- Soil symbol
- Soil series, textural phase and slope range
- Depth to seasonal high water table
- Depth to bedrock
- Estimated soil productivity group (for the proposed crop rotation)

Item e - h are required for sites receiving frequent application of sewage sludge

- In order to verify the information provided in item d, characterize the soil at each land application site. Representative soil borings or test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:
 - Soil symbol
 - Soil series, textural phase and slope range
 - Depth to seasonal high water table
 - Depth to bedrock

- 5) Estimated soil productivity group (for the proposed crop rotation)
- f. Collect and analyze soil samples from each field, weighted to best represent each of the soil borings performed for Item c. Using the table below or a separate attachment, provide at least one analysis per sample for each of the following parameters.

Soil Organic Matter (%)	_____
Soil pH (std. units)	_____
Cation Exchange Capacity (meq/100g)	_____
Total Nitrogen (ppm)	_____
Organic Nitrogen (ppm)	_____
Ammonia Nitrogen (ppm)	_____
Nitrate Nitrogen (ppm)	_____
Available Phosphorus (ppm)	_____
Exchangeable Potassium (mg/100g)	_____
Exchangeable Sodium (mg/100g)	_____
Exchangeable Calcium (mg/100g)	_____
Exchangeable Magnesium (mg/100g)	_____
Arsenic (ppm)	_____
Cadmium (ppm)	_____
Copper (ppm)	_____
Lead (ppm)	_____
Mercury (ppm)	_____
Molybdenum (ppm)	_____
Nickel (ppm)	_____
Selenium (ppm)	_____
Zinc (ppm)	_____
Manganese (ppm)	_____
Particle Size Analysis or USDA Textural Estimate (%)	_____

- g. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from sludge and chemical fertilizers. Describe any specialized agronomic management practices which may be required as a result of high soil pH. If the sludge is expected to possess an unusually high CCE or other unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.
- h. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, soil testing and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

SEWAGE SLUDGE APPLICATION AGREEMENT

This sewage sludge application agreement is made on this date _____ between _____, referred to here as "landowner", and _____, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of sewage sludge on landowner's land in amounts and in a manner authorized by VPDES permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of sewage sludge will be beneficial in providing fertilizer and soil conditioning to the property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health, the following site restrictions must be adhered to when sewage sludge receives Class B treatment for pathogen reduction:

1. Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge;
2. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil;
3. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil;
4. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge;
5. Animals shall not be grazed on the land for 30 days after application of sewage sludge;
6. Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the State Water Control Board;
7. Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge;
8. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.
9. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of sewage sludge borne cadmium equal to or exceeding 0.5 kilograms/hectare (0.45 pounds/acre).

Permittee agrees to notify landowner or landowner's designee of the proposed schedule for sewage sludge application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner:

Permittee:

Signature_____
Signature_____
Mailing Address_____
Mailing Address

SECTION D. SURFACE DISPOSAL

Complete this section only if you own or operate a surface disposal site. Provide the information for each active sewage sludge unit.

1. Information on Active Sewage Sludge Units.

a. Unit name or number: _____

b. Unit location

i. Street or Route#: _____

County: _____

City or Town: _____ State: _____ Zip: _____

ii. Latitude: _____ Longitude: _____

Method of latitude/longitude determination

_____ USGS map _____ Filed survey _____ Other

c. Topographic map. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the site location.

d. Total dry metric tons of sewage sludge placed on the active sewage sludge unit per 365-day period:
_____ dry metric tons.

e. Total dry metric tons of sewage sludge placed on the active sewage sludge unit over the life of the unit:
_____ dry metric tons.

f. Does the active sewage sludge unit have a liner with a minimum hydraulic conductivity of 1×10^{-7} cm/sec?
_____ Yes _____ No If "Yes", describe the liner or attach a description.

g. Does the active sewage sludge unit have a leachate collection system? _____ Yes _____ No

If "Yes", describe the leachate collection system or attach a description. Also, describe the method used for leachate disposal and provide the numbers of any federal, state or local permits for leachate disposal:

h. If you answered "No" to either f or g, answer the following:

Is the boundary of the active sewage sludge unit less than 150 meters from the property line of the surface disposal site? _____ Yes _____ No If "Yes", provide the actual distance in meters: _____

i. Remaining capacity of active sewage sludge unit, in dry metric tons: _____ dry metric tons

Anticipated closure date for active sewage sludge unit, if known: _____ (MM/DD/YYYY)

Provide with this application a copy of any closure plan developed for this active sewage sludge unit.

2. Sewage Sludge from Other Facilities.

Is sewage sludge sent to this active sewage sludge unit from any facilities other than yours? _____ Yes _____ No

If "Yes", provide the following information for each such facility, attach additional sheets as necessary.

a. Facility name: _____

b. Facility contact: _____

Title: _____

Phone: (_____) _____

c. Mailing address:

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

- d. List, on this form or an attachment, the facility's VPDES permit number as well as the numbers of all other federal, state or local permits that regulate the facility's sewage sludge management practices:

Permit Number: _____ Type of Permit: _____

- e. Which class of pathogen reduction is achieved before sewage sludge leaves the other facility?

_____ Class A _____ Class B _____ Neither or unknown

- f. Describe, on this form or on another sheet of paper, any treatment processes used at the other facility to reduce pathogens in sewage sludge:

- g. Which vector attraction reduction option is achieved before sewage sludge leaves the other facility?

_____ Option 1 (Minimum 38 percent reduction in volatile solids)

_____ Option 2 (Anaerobic process, with bench-scale demonstration)

_____ Option 3 (Aerobic process, with bench-scale demonstration)

_____ Option 4 (Specific oxygen uptake rate for aerobically digested sludge)

_____ Option 5 (Aerobic processes plus raised temperature)

_____ Option 6 (Raise pH to 12 and retain at 11.5)

_____ Option 7 (75 percent solids with no unstabilized solids)

_____ Option 8 (90 percent solids with unstabilized solids)

_____ None or unknown

- h. Describe, on this form or another sheet of paper, any treatment processes used at the other facility to reduce vector attraction properties of sewage sludge:

- i. Describe, on this form or another sheet of paper, any other sewage sludge treatment activities performed by the other facility that are not identified in e - h above:

3. Vector Attraction Reduction.

- a. Which vector attraction reduction option, if any, is met when sewage sludge is placed on this active sewage sludge unit?

_____ Option 9 (Injection below land surface)

_____ Option 10 (Incorporation into soil within 6 hours)

_____ Option 11 (Covering active sewage sludge unit daily)

- b. Describe, on this form or another sheet of paper, any treatment processes used at the active sewage sludge unit to reduce vector attraction properties of sewage sludge:

4. Ground Water Monitoring.

- a. Is ground water monitoring currently conducted at this active sewage sludge unit or are ground water monitoring data otherwise available for this active sewage sludge unit? ☐ Yes ☐ No

If "Yes", provide a copy of available ground water monitoring data. Also provide a written description of the well locations, the approximate depth to ground water, and the ground water monitoring procedures used to obtain these data.

- b. Has a ground water monitoring program been prepared for this active sewage sludge unit?
☐ Yes ☐ No If "Yes", submit a copy of the ground water monitoring program with this application.

- c. Have you obtained a certification from a qualified ground water scientist that the aquifer below the active sewage sludge unit has not been contaminated? ☐ Yes ☐ No

If "Yes", submit a copy of the certification with this application.

5. Site-Specific Limits.

Are you seeking site-specific pollutant limits for the sewage sludge placed on the active sewage sludge unit?

☐ Yes ☐ No If "Yes", submit information to support the request for site-specific pollutant limits with this application.

Disclaimer

This is an updated PDF document that allows you to type your information directly into the form, print it, and save the completed form.

Note: This form can be viewed and saved only using Adobe Acrobat Reader version 7.0 or higher, or if you have the full Adobe Professional version.

Instructions:

1. Type in your information
2. Save file (if desired)
3. Print the completed form
4. Sign and date the printed copy
5. Mail it to the directed contact.

T. Cohen
RECEIVED
MAY 28 2008
PRO

VA 0062731

FORM
2A
NPDES**NPDES FORM 2A APPLICATION OVERVIEW****APPLICATION OVERVIEW**

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

BASIC APPLICATION INFORMATION:

- A. Basic Application Information for all Applicants.** All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd.** All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. Certification.** All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

- D. Expanded Effluent Testing Data.** A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
 1. Has a design flow rate greater than or equal to 1 mgd.
 2. Is required to have a pretreatment program (or has one in place), or
 3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data.** A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
 1. Has a design flow rate greater than or equal to 1 mgd.
 2. Is required to have a pretreatment program (or has one in place), or
 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. Industrial User Discharges and RCRA/CERCLA Wastes.** A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
 1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
 2. Any other industrial user that:
 - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
 - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - c. Is designated as an SIU by the control authority.
- G. Combined Sewer Systems.** A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

VA 0062731

BASIC APPLICATION INFORMATION

PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS:

All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet.

A.1. Facility Information.

Facility name Elk Hill Farm WWTP

Mailing Address P.O. Box 99
Geeshland VA 23063

Contact person Bob Browning

Title Maintenance Supervisor

Telephone number 804 457-4866

Facility Address 1975 Elk Hill Rd
(not P.O. Box) Geeshland, VA 23063

A.2. Applicant Information. If the applicant is different from the above, provide the following:

Applicant name Michael L. Cook / Tetra Ops LLC

Mailing Address P.O. Box 13
Doswell VA

Contact person Michael L. Cook

Title Operator

Telephone number 804 994 2088

Is the applicant the owner or operator (or both) of the treatment works?

☐ owner ☒ operator

Indicate whether correspondence regarding this permit should be directed to the facility or the applicant.

☐ facility ☒ applicant

A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits).

NPDES VA 0062731 PSD _____

UIC _____ Other PWSID 4075200

RCRA _____ Other _____

A.4. Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.).

Name	Population Served	Type of Collection System	Ownership
<u>Elk Hill Farm</u>	<u>125</u>	<u>Gravity Sewer</u>	<u>Elk Hill Farm</u>
_____	_____	_____	_____
_____	_____	_____	_____
Total population served	<u>125</u>		

VA 0062731

A.5. Indian Country.

- a. Is the treatment works located in Indian Country?

☐ Yes ☒ No

- b. Does the treatment works discharge to a receiving water that is either in Indian Country or that is upstream from (and eventually flows through) Indian Country?

☐ Yes ☒ No

A.6. Flow. Indicate the design flow rate of the treatment plant (i.e., the wastewater flow rate that the plant was built to handle). Also provide the average daily flow rate and maximum daily flow rate for each of the last three years. Each year's data must be based on a 12-month time period with the 12th month of "this year" occurring no more than three months prior to this application submittal.

- a. Design flow rate
- 0.0125
- mgd

	Two Years Ago	Last Year	This Year	
b. Annual average daily flow rate	<u>0.006</u>	<u>0.004</u>	<u>0.005</u>	mgd
c. Maximum daily flow rate	<u>0.014</u>	<u>0.008</u>	<u>0.009</u>	mgd

A.7. Collection System. Indicate the type(s) of collection system(s) used by the treatment plant. Check all that apply. Also estimate the percent contribution (by miles) of each.

☒ Separate sanitary sewer 100 %

☐ Combined storm and sanitary sewer _____ %

A.8. Discharges and Other Disposal Methods.

- a. Does the treatment works discharge effluent to waters of the U.S.?

☒ Yes ☐ No

If yes, list how many of each of the following types of discharge points the treatment works uses:

i. Discharges of treated effluent	<u>1</u>
ii. Discharges of untreated or partially treated effluent	<u>0</u>
iii. Combined sewer overflow points	<u>0</u>
iv. Constructed emergency overflows (prior to the headworks)	<u>0</u>
v. Other _____	<u>0</u>

- b. Does the treatment works discharge effluent to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the U.S.?

☐ Yes ☒ No

If yes, provide the following for each surface impoundment:

Location: NA

Annual average daily volume discharged to surface impoundment(s) NA mgd

Is discharge _____ continuous or _____ intermittent?

- c. Does the treatment works land-apply treated wastewater?

☐ Yes ☒ No

If yes, provide the following for each land application site:

Location: _____

Number of acres: _____

Annual average daily volume applied to site: _____ Mgd

Is land application _____ continuous or _____ intermittent?

- d. Does the treatment works discharge or transport treated or untreated wastewater to another treatment works?

☐ Yes ☒ No

FACILITY NAME AND PERMIT NUMBER:

VA 0662731

Form Approved 1/14/99
OMB Number 2040-0086

If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).

NA

If transport is by a party other than the applicant, provide:

Transporter name: _____

Mailing Address: _____

Contact person: _____

Title: _____

Telephone number: _____

For each treatment works that receives this discharge, provide the following:

Name: _____

Mailing Address: _____

Contact person: _____

Title: _____

Telephone number: _____

If known, provide the NPDES permit number of the treatment works that receives this discharge. _____

Provide the average daily flow rate from the treatment works into the receiving facility. _____

mgd

- e. Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8.a through A.8.d above (e.g., underground percolation, well injection)?

____ Yes

____ ☒ No

If yes, provide the following for each disposal method:

Description of method (including location and size of site(s) if applicable): _____

Annual daily volume disposed of by this method: _____

Is disposal through this method _____ continuous or _____ intermittent?

FACILITY NAME AND PERMIT NUMBER:

VA 0062731

Form Approved 1/14/99
OMB Number 2040-0086

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9. Description of Outfall.

a. Outfall number

001

b. Location

(City or town, if applicable)

(Zip Code)

(County)

(State)

(Latitude)

(Longitude)

c. Distance from shore (if applicable)

NA

ft.

d. Depth below surface (if applicable)

NA

ft.

e. Average daily flow rate

0.002

mgd

f. Does this outfall have either an intermittent or a periodic discharge?

Yes

☒

No (go to A.9.g.)

If yes, provide the following information:

Number of times per year discharge occurs:

Average duration of each discharge:

Average flow per discharge:

mgd

Months in which discharge occurs:

g. Is outfall equipped with a diffuser?

Yes

☒

No

A.10. Description of Receiving Waters.

a. Name of receiving water

Little River UT

03

b. Name of watershed (if known)

James River Tributaries Lower Piedmont Region

United States Soil Conservation Service 14-digit watershed code (if known):

c. Name of State Management/River Basin (if known):

United States Geological Survey 8-digit hydrologic cataloging unit code (if known):

62080205

d. Critical low flow of receiving stream (if applicable):

acute

cfs

chronic

cfs

e. Total hardness of receiving stream at critical low flow (if applicable):

mg/l of CaCO₃

FACILITY NAME AND PERMIT NUMBER:

VA 0062731

Form Approved 1/14/99
OMB Number 2040-0086

A.11. Description of Treatment.

a. What levels of treatment are provided? Check all that apply.

☒ Primary☒ Secondary☐ Advanced☐ Other. Describe: _____

b. Indicate the following removal rates (as applicable):

Design BOD₅ removal or Design CBOD₅ removal _____ %

Design SS removal _____ %

Design P removal _____ %

Design N removal _____ %

Other _____ %

c. What type of disinfection is used for the effluent from this outfall? If disinfection varies by season, please describe.

If disinfection is by chlorination, is dechlorination used for this outfall? _____ Yes _____ No

d. Does the treatment plant have post aeration? _____ Yes _____ No

A.12. Effluent Testing Information. All Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three samples and must be no more than four and one-half years apart.

Outfall number: 001

PARAMETER	MAXIMUM DAILY VALUE		AVERAGE DAILY VALUE		
	Value	Units	Value	Units	Number of Samples
pH (Minimum)	7.2	S.U.			
pH (Maximum)	7.6	S.U.			
Flow Rate	.013	MGD	.008	MGD	1/D
Temperature (Winter)				C	1/D
Temperature (Summer)				C	1/D

* For pH please report a minimum and a maximum daily value

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		

CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.

BIOCHEMICAL OXYGEN DEMAND (Report one)	BOD-5						
	CBOD-5						
FECAL COLIFORM							
TOTAL SUSPENDED SOLIDS (TSS)							

END OF PART A.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

VA 0062731

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART B. ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).

All applicants with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).

B.1. Inflow and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.

0 gpd

Briefly explain any steps underway or planned to minimize inflow and infiltration.

B.2. Topographic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the entire area.)

- The area surrounding the treatment plant, including all unit processes.
- The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
- Each well where wastewater from the treatment plant is injected underground.
- Wells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.
- Any areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
- If the treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, rail, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or disposed.

B.3. Process Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., chlorination and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily flow rates between treatment units. Include a brief narrative description of the diagram.

B.4. Operation/Maintenance Performed by Contractor(s).

Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor? ☒ Yes ☐ No

If yes, list the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional pages if necessary).

Name: TETRA Ops LLC

Mailing Address: P.O. Box 13
DOSWELL VA

Telephone Number: 804-994-2088

Responsibilities of Contractor: Consultant

B.5. Scheduled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or uncompleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the treatment works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 for each. (If none, go to question B.6.)

- a. List the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.

NA

- b. Indicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.

☐ Yes ☐ No

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

VA 0062731

- c. If the answer to B.5.b is "Yes," briefly describe, including new maximum daily inflow rate (if applicable).

NA

- d. Provide dates imposed by any compliance schedule or any actual dates of completion for the implementation steps listed below, as applicable. For improvements planned independently of local, State, or Federal agencies, indicate planned or actual completion dates, as applicable. Indicate dates as accurately as possible.

Implementation Stage	Schedule	Actual Completion
	MM / DD / YYYY	MM / DD / YYYY
- Begin construction	___/___/___	___/___/___
- End construction	___/___/___	___/___/___
- Begin discharge	___/___/___	___/___/___
- Attain operational level	___/___/___	___/___/___

- e. Have appropriate permits/clearances concerning other Federal/State requirements been obtained? ____Yes ____No

Describe briefly: _____

B.6. EFFLUENT TESTING DATA (GREATER THAN 0.1 MGD ONLY).

Applicants that discharge to waters of the US must provide effluent testing data for the following parameters. Provide the indicated effluent testing required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall Number: NA

POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE			ANALYTICAL METHOD	ML / MDL
	Conc.	Units	Conc.	Units	Number of Samples		
CONVENTIONAL AND NONCONVENTIONAL COMPOUNDS.							
AMMONIA (as N)							
CHLORINE (TOTAL RESIDUAL, TRC)							
DISSOLVED OXYGEN							
TOTAL KJELDAHL NITROGEN (TKN)							
NITRATE PLUS NITRITE NITROGEN							
OIL and GREASE							
PHOSPHORUS (Total)							
TOTAL DISSOLVED SOLIDS (TDS)							
OTHER							

END OF PART B.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

VA 006 2781

Form Approved 1/14/99
OMB Number 2040-0086

BASIC APPLICATION INFORMATION

PART C. CERTIFICATION

All applicants must complete the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicants must complete all applicable sections of Form 2A, as explained in the Application Overview. Indicate below which parts of Form 2A you have completed and are submitting. By signing this certification statement, applicants confirm that they have reviewed Form 2A and have completed all sections that apply to the facility for which this application is submitted.

Indicate which parts of Form 2A you have completed and are submitting:

☒ Basic Application Information packet

Supplemental Application Information packet:

☐ Part D (Expanded Effluent Testing Data)

☐ Part E (Toxicity Testing: Biomonitoring Data)

☐ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)

☐ Part G (Combined Sewer Systems)

ALL APPLICANTS MUST COMPLETE THE FOLLOWING CERTIFICATION.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and official title Michael L. Cook, Consultant.

Signature [Signature]

Telephone number 804 994 2088

Date signed 30 April 98

Upon request of the permitting authority, you must submit any other information necessary to assess wastewater treatment practices at the treatment works or identify appropriate permitting requirements.

SEND COMPLETED FORMS TO:

FACILITY NAME AND PERMIT NUMBER:

VA 0062731

Form Approved 1/14/99
OMB Number 2040-0086

SUPPLEMENTAL APPLICATION INFORMATION

N.A.

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
METALS (TOTAL RECOVERABLE), CYANIDE, PHENOLS, AND HARDNESS.											
ANTIMONY											
ARSENIC											
BERYLLIUM											
CADMIUM											
CHROMIUM											
COPPER											
LEAD											
MERCURY											
NICKEL											
SELENIUM											
SILVER											
THALLIUM											
ZINC											
CYANIDE											
TOTAL PHENOLIC COMPOUNDS											
HARDNESS (AS CaCO ₃)											
Use this space (or a separate sheet) to provide information on other metals requested by the permit writer											

FACILITY NAME AND PERMIT NUMBER:

VA 0062731

Form Approved 1/14/99
OMB Number 2040-0086Outfall number: NA (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
VOLATILE ORGANIC COMPOUNDS.											
ACROLEIN											
ACRYLONITRILE											
BENZENE											
BROMOFORM											
CARBON TETRACHLORIDE											
CHLOROBENZENE											
CHLORODIBROMO-METHANE											
CHLOROETHANE											
2-CHLORO-ETHYL VINYL ETHER											
CHLOROFORM											
DICHLOROBROMO-METHANE											
1,1-DICHLOROETHANE											
1,2-DICHLOROETHANE											
TRANS-1,2-DICHLORO-ETHYLENE											
1,1-DICHLOROETHYLENE											
1,2-DICHLOROPROPANE											
1,3-DICHLORO-PROPYLENE											
ETHYLBENZENE											
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE											
1,1,2,2-TETRACHLORO-ETHANE											
TETRACHLORO-ETHYLENE											
TOLUENE											

FACILITY NAME AND PERMIT NUMBER:

VA 0062731

Form Approved 1/14/99
OMB Number 2040-0086Outfall number: NA (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
1,1,1-TRICHLOROETHANE											
1,1,2-TRICHLOROETHANE											
TRICHLOROETHYLENE											
VINYL CHLORIDE											
Use this space (or a separate sheet) to provide information on other volatile organic compounds requested by the permit writer											
ACID-EXTRACTABLE COMPOUNDS											
P-CHLORO-M-CRESOL											
2-CHLOROPHENOL											
2,4-DICHLOROPHENOL											
2,4-DIMETHYLPHENOL											
4,6-DINITRO-O-CRESOL											
2,4-DINITROPHENOL											
2-NITROPHENOL											
4-NITROPHENOL											
PENTACHLOROPHENOL											
PHENOL											
2,4,6-TRICHLOROPHENOL											
Use this space (or a separate sheet) to provide information on other acid-extractable compounds requested by the permit writer											
BASE-NEUTRAL COMPOUNDS.											
ACENAPHTHENE											
ACENAPHTHYLENE											
ANTHRACENE											
BENZIDINE											
BENZO(A)ANTHRACENE											
BENZO(A)PYRENE											

FACILITY NAME AND PERMIT NUMBER:

VA 0062731

Form Approved 1/14/99
OMB Number 2040-0086Outfall number: 29 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
3,4 BENZO-FLUORANTHENE											
BENZO(GH)PERYLENE											
BENZO(K)FLUORANTHENE											
BIS (2-CHLOROETHOXY) METHANE											
BIS (2-CHLOROETHYL)-ETHER											
BIS (2-CHLOROISO-PROPYL) ETHER											
BIS (2-ETHYLHEXYL) PHTHALATE											
4-BROMOPHENYL PHENYL ETHER											
BUTYL BENZYL PHTHALATE											
2-CHLORONAPHTHALENE											
4-CHLORPHENYL PHENYL ETHER											
CHRYSENE											
DI-N-BUTYL PHTHALATE											
DI-N-OCTYL PHTHALATE											
DIBENZO(A,H) ANTHRACENE											
1,2-DICHLOROBENZENE											
1,3-DICHLOROBENZENE											
1,4-DICHLOROBENZENE											
3,3-DICHLOROBENZIDINE											
DIETHYL PHTHALATE											
DIMETHYL PHTHALATE											
2,4-DINITROTOLUENE											
2,6-DINITROTOLUENE											
1,2-DIPHENYLHYDRAZINE											

FACILITY NAME AND PERMIT NUMBER:

VA 0062731

Form Approved 1/14/99
OMB Number 2040-0086

Outfall number: _____ (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	MAXIMUM DAILY DISCHARGE				AVERAGE DAILY DISCHARGE					ANALYTICAL METHOD	ML/ MDL
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples		
FLUORANTHENE											
FLUORENE											
HEXACHLOROBENZENE											
HEXACHLOROBUTADIENE											
HEXACHLOROCYCLO-PENTADIENE											
HEXACHLOROETHANE											
INDENO(1,2,3-CD)PYRENE											
ISOPHORONE											
NAPHTHALENE											
NITROBENZENE											
N-NITROSODI-N-PROPYLAMINE											
N-NITROSODI- METHYLAMINE											
N-NITROSODI-PHENYLAMINE											
PHENANTHRENE											
PYRENE											
1,2,4-TRICHLOROBENZENE											

Use this space (or a separate sheet) to provide information on other base-neutral compounds requested by the permit writer

Use this space (or a separate sheet) to provide information on other pollutants (e.g., pesticides) requested by the permit writer

END OF PART D.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
2A YOU MUST COMPLETE

VA 006 2731

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

WA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

E.1. Required Tests.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years.

_____ chronic _____ acute

E.2. Individual Test Data. Complete the following chart for each whole effluent toxicity test conducted in the last four and one-half years. Allow one column per test (where each species constitutes a test). Copy this page if more than three tests are being reported.

Test number: _____ Test number: _____ Test number: _____

a. Test information.

Test species & test method number			
Age at initiation of test			
Outfall number			
Dates sample collected			
Date test started			
Duration			

b. Give toxicity test methods followed.

Manual title			
Edition number and year of publication			
Page number(s)			

c. Give the sample collection method(s) used. For multiple grab samples, indicate the number of grab samples used.

24-Hour composite			
Grab			

d. Indicate where the sample was taken in relation to disinfection. (Check all that apply for each)

Before disinfection			
After disinfection			
After dechlorination			

FACILITY NAME AND PERMIT NUMBER:

VA 0662731

Form Approved 1/14/99
OMB Number 2040-0086

Test number: _____

Test number: _____

Test number: _____

e. Describe the point in the treatment process at which the sample was collected.

Sample was collected:

f. For each test, include whether the test was intended to assess chronic toxicity, acute toxicity, or both.

Chronic toxicity

Acute toxicity

g. Provide the type of test performed.

Static

Static-renewal

Flow-through

h. Source of dilution water. If laboratory water, specify type; if receiving water, specify source.

Laboratory water

Receiving water

i. Type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.

Fresh water

Salt water

j. Give the percentage effluent used for all concentrations in the test series.

k. Parameters measured during the test. (State whether parameter meets test method specifications)

pH

Salinity

Temperature

Ammonia

Dissolved oxygen

l. Test Results.

Acute:

Percent survival in 100%
effluent

%

%

%

LC₅₀

95% C.I.

%

%

%

Control percent survival

%

%

%

Other (describe)

FACILITY NAME AND PERMIT NUMBER:

VA 0062731

Form Approved 1/14/99
OMB Number 2040-0086

Chronic:

NOEC	%	%	%
IC ₂₅	%	%	%
Control percent survival	%	%	%
Other (describe)			

m. Quality Control/Quality Assurance.

Is reference toxicant data available?			
Was reference toxicant test within acceptable bounds?			
What date was reference toxicant test run (MM/DD/YYYY)?			
Other (describe)			

E.3. Toxicity Reduction Evaluation. Is the treatment works involved in a Toxicity Reduction Evaluation?

___ Yes ___ No

If yes, describe:

E.4. Summary of Submitted Biomonitoring Test Information. If you have submitted biomonitoring test information, or information regarding the cause of toxicity, within the past four and one-half years, provide the dates the information was submitted to the permitting authority and a summary of the results.

Date submitted: _____ (MM/DD/YYYY)

Summary of results: (see instructions)

END OF PART E.
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

VA 0062731

SUPPLEMENTAL APPLICATION INFORMATION

PART F. INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

All treatment works receiving discharges from significant industrial users or which receive RCRA, CERCLA, or other remedial wastes must complete Part F.

GENERAL INFORMATION:

F.1. Pretreatment Program. Does the treatment works have, or is it subject to, an approved pretreatment program?

____ Yes ____ No

F.2. Number of Significant Industrial Users (SIUs) and Categorical Industrial Users (CIUs). Provide the number of each of the following types of industrial users that discharge to the treatment works.

a. Number of non-categorical SIUs. _____

b. Number of CIUs. _____

SIGNIFICANT INDUSTRIAL USER INFORMATION:

Supply the following information for each SIU. If more than one SIU discharges to the treatment works, copy questions F.3 through F.8 and provide the information requested for each SIU.

F.3. Significant Industrial User Information. Provide the name and address of each SIU discharging to the treatment works. Submit additional pages as necessary.

Name: _____

Mailing Address: _____

F.4. Industrial Processes. Describe all of the industrial processes that affect or contribute to the SIU's discharge.

F.5. Principal Product(s) and Raw Material(s). Describe all of the principal processes and raw materials that affect or contribute to the SIU's discharge.

Principal product(s): _____

Raw material(s): _____

F.6. Flow Rate.

a. Process wastewater flow rate. Indicate the average daily volume of process wastewater discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (____ continuous or ____ intermittent)

b. Non-process wastewater flow rate. Indicate the average daily volume of non-process wastewater flow discharged into the collection system in gallons per day (gpd) and whether the discharge is continuous or intermittent.

_____ gpd (____ continuous or ____ intermittent)

F.7. Pretreatment Standards. Indicate whether the SIU is subject to the following:

a. Local limits _____ Yes ____ No

b. Categorical pretreatment standards _____ Yes ____ No

If subject to categorical pretreatment standards, which category and subcategory?

FACILITY NAME AND PERMIT NUMBER:

VA0662731

Form Approved 1/14/99
OMB Number 2040-0086

F.8. Problems at the Treatment Works Attributed to Waste Discharged by the SIU. Has the SIU caused or contributed to any problems (e.g., upsets, interference) at the treatment works in the past three years?

☐ Yes ☐ No

If yes, describe each episode.

NA

RCRA HAZARDOUS WASTE RECEIVED BY TRUCK, RAIL, OR DEDICATED PIPELINE:

F.9. RCRA Waste. Does the treatment works receive or has it in the past three years received RCRA hazardous waste by truck, rail, or dedicated pipe? ☐ Yes ☐ No (go to F.12.)

F.10. Waste Transport. Method by which RCRA waste is received (check all that apply):

☐ Truck

☐ Rail

☐ Dedicated Pipe

F.11. Waste Description. Give EPA hazardous waste number and amount (volume or mass, specify units).

EPA Hazardous Waste Number

Amount

Units

CERCLA (SUPERFUND) WASTEWATER, RCRA REMEDIATION/CORRECTIVE ACTION WASTEWATER, AND OTHER REMEDIAL ACTIVITY WASTEWATER:

F.12. Remediation Waste. Does the treatment works currently (or has it been notified that it will) receive waste from remedial activities?

☐ Yes (complete F.13 through F.15.)

☐ No

Provide a list of sites and the requested information (F.13 - F.15.) for each current and future site.

F.13. Waste Origin. Describe the site and type of facility at which the CERCLA/RCRA/or other remedial waste originates (or is expected to originate in the next five years).

F.14. Pollutants. List the hazardous constituents that are received (or are expected to be received). Include data on volume and concentration, if known. (Attach additional sheets if necessary).

F.15. Waste Treatment.

a. Is this waste treated (or will it be treated) prior to entering the treatment works?

☐ Yes ☐ No

If yes, describe the treatment (provide information about the removal efficiency):

b. Is the discharge (or will the discharge be) continuous or intermittent?

☐ Continuous

☐ Intermittent

If intermittent, describe discharge schedule.

END OF PART F.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE

FACILITY NAME AND PERMIT NUMBER:

Form Approved 1/14/99
OMB Number 2040-0086

VA 0062731

SUPPLEMENTAL APPLICATION INFORMATION

PART G. COMBINED SEWER SYSTEMS

~ A

If the treatment works has a combined sewer system, complete Part G.

G.1. System Map. Provide a map indicating the following: (may be included with Basic Application Information)

- All CSO discharge points.
- Sensitive use areas potentially affected by CSOs (e.g., beaches, drinking water supplies, shellfish beds, sensitive aquatic ecosystems, and outstanding natural resource waters).
- Waters that support threatened and endangered species potentially affected by CSOs.

G.2. System Diagram. Provide a diagram, either in the map provided in G.1. or on a separate drawing, of the combined sewer collection system that includes the following information:

- Locations of major sewer trunk lines, both combined and separate sanitary.
- Locations of points where separate sanitary sewers feed into the combined sewer system.
- Locations of in-line and off-line storage structures.
- Locations of flow-regulating devices.
- Locations of pump stations.

CSO OUTFALLS:

Complete questions G.3 through G.6 once for each CSO discharge point.

G.3. Description of Outfall.

- Outfall number _____
- Location _____
(City or town, if applicable) (Zip Code)

(County) (State)

(Latitude) (Longitude)
- Distance from shore (if applicable) _____ ft.
- Depth below surface (if applicable) _____ ft.
- Which of the following were monitored during the last year for this CSO?
____ Rainfall ____ CSO pollutant concentrations ____ CSO frequency
____ CSO flow volume ____ Receiving water quality
- How many storm events were monitored during the last year? _____

G.4. CSO Events.

- Give the number of CSO events in the last year.
_____ events (____ actual or ____ approx.)
- Give the average duration per CSO event.
_____ hours (____ actual or ____ approx.)

FACILITY NAME AND PERMIT NUMBER:

V A 006 2731

Form Approved 1/14/99
OMB Number 2040-0086

- c. Give the average volume per CSO event.

_____ million gallons (_____ actual or _____ approx.)

- d. Give the minimum rainfall that caused a CSO event in the last year.

_____ inches of rainfall

G.5. Description of Receiving Waters.

- a. Name of receiving water: _____

- b. Name of watershed/river/stream system: _____

United States Soil Conservation Service 14-digit watershed code (if known): _____

- c. Name of State Management/River Basin: _____

United States Geological Survey 8-digit hydrologic cataloging unit code (if known): _____

G.6. CSO Operations.

Describe any known water quality impacts on the receiving water caused by this CSO (e.g., permanent or intermittent beach closings, permanent or intermittent shell fish bed closings, fish kills, fish advisories, other recreational loss, or violation of any applicable State water quality standard).

END OF PART G.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM 2A YOU MUST COMPLETE.